AN ABSTRACT OF

The Cavendish Lecture

ON

SOME POINTS IN THE ETIOLOGY OF TYPHOID FEVER.

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MR. PRESIDENT AND GENTLEMEN,—I have selected a subject which has engaged so many pens that its literature would fill many volumes, and in relation to which it is no easy matter to make any novel contributions. There is, however, some degree of appropriateness in my choice of it from the circumstance that I am the principal health officer of a city which is more ravaged by typhoid fever than almost any other town in the United Kingdom. The results of my observation of typhoid fever in Dublin may perhaps be of some slight use in the general consideration of the causation and modes of propagation of this widespread and formidable disease.

The lecturer, after giving some statistics showing "that in Dublin typhoid fever causes a greater waste of life than in any English town except St. Helens, and in Ireland is only exceeded by Belfast," observed that Professor Notter of Netley had pointed out the marked increase of typhoid fever in the European army in India, which was all the more remarkable as the general and zymotic death-rates in that army had decreased. During the ten years ended in 1879 the deaths amongst the troops ascribed to typhoid fever were in the ratio of 2·03 per 1000; in the period 1880–85 they were 2·98 per 1000; in 1887, 3·76 per 1000; and in 1888, 3·75 per 1000 Compared with these rates the mortality caused by this disease in British cities—even in Dublin—was trivial. He said: "Typhus fever caused formerly frightful ravages in Dublin, and even within a comparatively recent period it was rather rife. If we compare the mortality produced by this disease with that attributed to typhoid fever during recent years, it will be seen that the former is rapidly dying out, whilst the latter is increasing. The lessened death-rate in our towns, and more especially the decrease in the mortality caused by the infective diseases taken as a group, are unquestionably due to the improved hygienic conditions under which the urban populations are now placed. Acts of Parliament which deal with this subject, aided by the efforts of sanitary associations, of individual sanitarians, of hygienic literature, and a more general knowledge and appreciation of the natural laws of health, are lessening decade by decade the difference between urban and rural death-rates. Typhoid fever is probably coextensive with man, but it is more prevalent in some countries than in others, and in many parts of the world, including the British Islands, it is endemic. There seems to be little doubt as to the disease being caused by a micro-organism. This organism has been found in the blood, spleen, liver, kidneys, and other organs, and in great numbers in the mesenteric glands. Whether an attack of typhoid fever can occur without an antecedent one is a question which has often been discussed, and has been answered affirmatively by one of the greatest authorities on the subject of fever, the late Dr. Murchison. The spontaneous origin of the *materies morbi* of the disease by the decomposition of fæcal matters is a theory which recent bacteriological research has, I think, completely exploded. There being a consensus of medical opinion in favour of the microbial origin of typhoid fever, the biology of the microbe comes to be a subject of great interest. There are pathogenic microbes which apparently soon perish when detached from the animals in which they have been developed, whilst others are more persistent, and the spores of many kinds long retain, like vegetable seeds, their vitality and power to develop under favourable conditions. When supplied with nutrient material, such as gelatine, potato, &c., the pathogenic microbes seem to live and multiply, from which we may infer that they may, when detached from animals become deposited by accident in dead organic matter capable of affording nourishment to them. It may, however, be reasonably assumed that the great majority of the pathogenic micro-organisms would soon perish if the animals with which they are associated ceased to exist. It is, moreover, quite certain that the microbes which produce some diseases would continue. For example, the bacillus malariæ and amœboid bodies, and no doubt the bacilli and other micro-organisms producing all kinds of intermittent fevers, have an independent existence. They are found in the soils of many districts, or rich alluvium, and in the polders and banks of rivers, especially in tropical and subtropical climates. They existed abundantly in these islands in former times, and have been got rid of by the drainage and cultivation of the soil. These organisms are clearly of the earth, but they produce specific diseases in man. Without admitting or denying the theory that there is a kind of hybrid fever—typho-malarial—intermediate between typhoid fever and ague, I am disposed to believe that in relation to their propagation there are several points of resemblance between typhoid fever and the intermittent fevers. The intimate connexion between them has been pointed out by Dr. Harley in the Lumleian Lectures for 1889 Johnston,[1] treating of Continued Fevers of the South (the United States), states that it is probably changing its character in that region, is assuming a less defined type, and a milder form. He believes that many cases of so-called malaria are really typhoid fever, and he concludes by acknowledging the existence of a typho-malarial fever. I am disposed to look very favourably upon Dr. Woodhead's theory, that all bacilli are primarily saprophytes—that is, have an independent existence apart from animals; and that they become under altered conditions pathogenic, and prey upon living tissues.[2] The saprophytes are, with perhaps the exception of the micro-organisms connected with malarial diseases, innocuous; but under certain conditions, at present not well understood, they may acquire virulence. Those eminent bacteriologists, MM. A. Rodet and G. Roux, have stated very positively that the typhoid bacillus of Eberth is merely an altered and virulent form of the bacillus coli communis described by Escherech. This assertion is a very remarkable one. Pasteur and others have shown that the 'attenuation' or degeneration of certain pathogenic microbes greatly reduce their virulence, and may even render them completely innocuous.

"According to Rodet and Roux[3] the bacillus coli communis, without losing its general botanical characters, acquires a toxic nature within the human organism, and becomes, in fact, Eberth's typhoid bacillus. The researches of Rodet and Roux seem further to show that the bacillus coli communis, which may exist in the human organism without doing injury to the latter, can become highly virulent and infective when introduced into water Hence they conclude that not only typhoid dejections, but simple fæcal pollution of water, may produce typhoid fever in those who drink it. This view would seem to favour Murchison's pythogenic theory; but they really differ completely. In the latter it is assumed that the toxic principle of typhoid fever may originate in decomposing fæcal matter; but, according to Rodet and Roux's theory, a harmless saprophytic organism acquires by mere contact with water new and infective properties. It seems not improbable, then, that an organism which can exist for at least some weeks in earth and water is the *materies morbi* of typhoid fever. The organism may be harmless until it has undergone certain transformations in the system, or it may be immediately infective. Such an organism is clearly much nearer akin to the microbes of malarial disease than to those of such affections as gonorrhœa, typhus fever, or measles. The condition of soils or water has little relevancy to these and most other of the infective diseases; but it has a great deal to do with remittent, intermittent, and typhoid fevers—perhaps, also, with dysentery and diphtheria. The connexion between the sinking of ground water and the occurrence of typhoid fever has been investigated with great care by Professors Pettenkofer and Bahl of Munich. They found that the cases of typhoid fever increased whilst the ground water was sinking, and that they were most numerous when the water, having been unusually high,

[1] Philadelphia Medical Bulletin, 1890.

[2] Bacteria and their Products. By German Sims Woodhead, M.D. London: Walter Scott. 1891.

[3] Comptes Rendus de la Société de Biologie, tome ii., No. 7, 1890.

sunk rapidly to the lowest level. This theory has been supported by many eminent epidemiologists, and opposed by others. It holds good as applied to several German towns; but it is stated that in others no relation between the sinking of ground water and increase of typhoid fever has been noticed. In England Pettenkofer's theory has not received much support. An elaborate official report upon the prevalence of the disease in Cologne was issued in 1889. It attributes it, not to fluctuations of the underground water, but rather to the temperature and composition of the subterranean atmosphere, the proportion of bacterial life in it, and the opportunities afforded the micro-organisms to invade the atmosphere.

"Localised outbreaks of typhoid fever can frequently be directly traced to the use of a particular supply of polluted water or milk; but the widespread epidemics of this disease, and even its persistent occurrence in so many towns, must be due to some other cause or causes. For example, in Dublin it was epidemic in 1891–2 and in 1889; it appeared in all parts of the city and adjacent districts. The city and all its suburbs, with one exception, are supplied with water procured from a gathering ground twenty-six miles distant, in a mountainous region of the county of Wicklow. There are very few persons living on the drainage-shed which furnishes the Dublin pipe water, and of those few nearly all reside in a small village close to the reservoir in which the water is impounded. Last year it was asserted that a portion of the drainage of the village passed into the reservoir, but the statement was completely refuted. I believe there are few cities in the world supplied with such good water as Dublin fortunately possesses. I make this statement from the result of many careful examinations of the reservoir and its surroundings, and of hundreds of chemical and biological examinations of the water. There are very few wells now in Dublin, and only an almost infinitesimal proportion of the water drunk by the inhabitants is obtained from those sources. I dwell upon the fact that Dublin has a very pure water-supply, because, in view of the undoubted fact that typhoid fever is propagated by the medium of infected water, it is noteworthy that Dublin has almost the highest typhoid fever death-rate in the United Kingdom. The one suburb of Dublin (Rathmines township, population 27,410) which has an independent supply of water derives it also from a pure source, the gathering grounds being districts in the Dublin mountains composed of granite and silurian rocks. In Rathmines typhoid fever prevails much to the same extent as in the other townships which are placed under similar conditions as regards site and drainage.

"The street sewers in Dublin are of excellent construction, and many of the more important ones have been recently reconstructed. Unfortunately at present they deliver their contents into a tidal river (the Liffey) which bisects the city. The mouths of the sewers are provided with valvular gates, which close and open as the tide in the river rises and falls. Some of the sewers are sealed up for the greater part of the twenty-four hours, and consequently their contents accumulate, and have to be in part removed by the usual methods of pumping them up to a higher level, whence they are run into the river. The sewers are provided with the usual ventilators, which allow a free communication between the street air and the sewers. It will be seen, then, that Dublin is a low-lying city. The floors of the basement storeys of houses are not above the level of the highest tides, and some are actually below it. It is evident, then, that the soils, subsoils, and rocks in the low-lying districts of the city have but a poor natural drainage, and that for a large portion of the day drainage is altogether suspended, except from the more elevated parts of the city, in the lower. There is much stagnation of the water in the ground. A railway which, passing over the Liffey, connects the Dublin and Kingstown Railway with the Great Northern Railway, has recently been constructed. In sinking for foundations for the many bridges required by this line, a good opportunity for examining the nature of the subsoils and rock was afforded. I took advantage of it. I found that near the river the deep-lying gravel was more or less filled up with mud, which often possessed an offensive odour, and even evolved sulphuretted hydrogen gas. The water taken from the excavations was loaded with organic matter, and literally teemed with micro-organisms. Fraenkel found a similar condition of things in the soil of Berlin, near the Spree. On the whole, the distribution of typhoid fever in the suburbs resembles that described for the city. There is not much of the gravel in Clontarf, but upon it most of the cases in the district occur. The rate is as high as in the city, whilst the general and zymotic death-rates are lower. In our report to the War Office on the sanitary condition of the Royal Barracks, Dublin, Dr. Grimshaw, Registrar-General, and myself pointed out that typhoid fever prevailed where the gravel existed."

The lecturer then indicated the different localities on the map where the fever prevailed, and showed that many were scarcely above sea level. Continuing, he said,

"Dublin is a city with an undue amount of typhoid fever in it. It is supplied with pure water drawn from a distant source. Its local wells have fallen into disuse. Its street sewers are as good as those in the English towns. Like other places, its milk-supplies may be now and then infected with typhoid poison. The prevalence of typhoid fever in Dublin in 1889 and 1891–2 was by many persons attributed to the consumption of oysters, and for a time so great was this oyster scare that the sale of the mollusc nearly died out. In Belfast the same idea prevailed, but not so generally. I have repeatedly detected sewage in oysters taken from the shores of Dublin Bay. Oysters, cockles, mussels, and other lamellibranchiate molluscs are often eaten uncooked, and their shells enclose a liquid which is also often drank raw. Although oysters, when deserted by the tide, usually keep their valves closed, they do not invariably do so, and therefore at low water sewage trickling down the shore is likely to find its way into the interior of the oyster and other shell fish. I would prefer having my oysters taken from the lonely coasts of Clare and Kerry than from the estuaries of rivers which receive the filth of large towns. It is possible that vegetables taken from an infected soil might be the vehicle of the disease. Salad, radishes, and other esculents are often brought into the house without having been separated from the soil in which they have been grown. It might happen that, if eaten without being perfectly washed, they might introduce the microbe of typhoid fever into the body. Although infected food may cause cases of typhoid fever in Dublin, it is not probable that they are more numerous there than elsewhere; we must therefore look for some other more common source of the disease than infected water, milk, and other foods. Of course, the house drains may be blamed for the prevalence of the disease. I examine, or cause to be examined, the sanitary condition of the houses in which it occurs; in a large proportion of them defects are detected, the traps are out of order, the drains are choked up with fat or other obstruction, or they may consist of rubble—in short, the usual sanitary defects found in so many houses when carefully overhauled are detected in nearly half of the houses examined. On the other hand, the disease constantly makes its appearance in houses where no defects can be detected, where the 'smoke test' shows no leak of drain or defect of trap, where the waterclosets are of the most recent construction and in good working order, and where the water is taken direct from high-pressure taps.

"It is admitted that there has been a great improvement during recent years in the construction of house drains, and the old 'built' sewers have been all but completely replaced by earthenware pipes laid in cement. As I have already stated, the zymotic death-rate has greatly declined, but still typhoid fever more than holds its own. I can only account for this by assuming that the microbes of the disease have established themselves in the soil, that they multiply therein, and that they issue occasionally from it into the atmosphere, which, consequently, becomes infected. It is only in this way that we can reasonably account for the periodic character of the disease, for its seasonal intensity, for its epidemics. It may be said as against this view that we have epidemics of small-pox, scarlet fever, measles, and so on; but these diseases are directly communicable from person to person, whereas that is not the case with typhoid fever. The waterclosets, house drains, and street sewers do not vary much from year to year, and when they do vary it is generally because they are improved. In the soil therefore we must look for the cause of the endemicity of typhoid fever in Dublin and in other places. This theory is greatly strengthened by the fact that the porous soils are to a much greater extent likely to be the habitat of the disease than the stiff clays. The conditions of existence to all kinds of organisms are more favourable in loose soils than in adhesive dense clays, in which air cannot freely circulate. The action of strong winds and the rising and sinking of underground water

more readily cause movements of air in gravels and loose soils than in clays; and the escape of microbes from the former under such circumstances must the more freely occur. The streets of Dublin have lately been to a large extent paved with stone setts, which circumstance may, perhaps, account to some extent for the increase of typhoid fever. The underground air cannot now diffuse into the atmosphere over the roadway, and therefore may be drawn in larger quantities into the houses, the basement floors of which are rarely concreted. Hoffman[4] has pointed out that there is in porous soils what he terms a superficial zone of evaporation, in which the moisture varies from saturation to zero. In the hot summer weather the zone is considerable in extent, and when rain descends on it, after a period of heat and drought, it is often capable of retaining the whole of the latter without its lower border becoming wet. In such there is always a dry layer between the surface part, which is temporarily wetted by the rain, and the deeper strata in which the water lies. Under these conditions the impurities which reach the soil become deposited in the dry zone; under this zone is situated a layer which is always wet. When the upper zone is filled with rain the amount of water in the second zone remains constant, for any excess which it may receive passes down into the third zone, or that of the underground water. If the typhoid bacillus exists in the first zone, it must alternately be immersed in water and in air. In the former case it remains in the soil, in the latter it may be transported to the atmosphere by air currents. The deeper the ground water sinks the greater will be the extent of the zone in which the movements of organisms can take place; but even whilst the ground water is sinking the outermost layer of soil may be kept moist by slight and long-continued rain. In this case, however large the dry zone, none of its organisms would escape from it into the air. I admit that the chances of detaching micro-organisms from most surfaces are slight, but it must occur now and again. Those of typhoid fever have not, I believe, been detected yet in the atmosphere, but pus organisms and the microbes of diphtheria have.

"It is to the bacteriologist that we must look for the proofs that several forms of microbes are concerned in the production of the typhoid diseases. At present they are not agreed as to the actual form of the typhoid microbes. Letzerich has described them as consisting of micrococci, either isolated in colonies or in chains, very dissimilar to those of diphtheria and infectious pneumonia, but which by cultivation reach a size twice or thrice greater than the micrococci of the last-mentioned disease. On the other hand, Klebs describes the bacillus typhosus as large-sized filaments of 50 micro-millimetres in length and 0·2 micro-millimetres in breadth, without segments or ramifications. As typhoid fever presents considerable diversity, not only in individual cases but in its epidemics, it is only reasonable to suppose a similar variety in the microbes which produce it. This may account for the somewhat conflicting accounts which bacteriologists have given in reference to the micro-organisms found associated with the disease.

"The means which we must use in order to eliminate typhoid fever or lessen its ravages are numerous, and on the whole costly, and all directly or indirectly relate to the ground. A supply of pure water is absolutely necessary. The disease is propagated by means of water, but that which we use is gathered from the ground, and consequently from the latter it derives its pathogenic organisms. London is a city in which the water carriage of excreta is general, but it is fairly free from typhoid fever. Bolton, Preston, Salford, and other towns where waterclosets are few, have excessive typhoid fever death-rates. I attribute the prevalence of typhoid fever in Dublin to the system of storing excreta in pits, generally having a mere clay bottom. This practice, continued for centuries, has ultimately caused the soils to become impregnated with filth and its organisms. The development and retention of those organisms are favoured by the circumstances that subsoil drainage of a large part of the city is very defective, and I attribute in part to this condition of the soil the undue amount of typhoid fever to which I have so often referred. I look to its thorough drainage and its freedom from pollution as the two important means of lessening the amount of typhoid poison in it. As the microbes can only escape when the outer layer of soil is dry, it is well to prevent dust rising from the roadways, by having the latter well watered in hot and dry weather. A most important preventive measure is to keep the soil from pollution by fæcal matter, or any kind of organic matter, upon which microbes could develop. We should be as careful not to pollute our ground as our air. I am convinced that typhoid fever is often caused by underground air entering our dwellings. This may be to a great extent prevented by having even the thinnest layer of asphalte or allied material covering the whole of the site upon which the house rests. No air or moisture can pass through such a layer. As microbes are most abundant in the upper layers of soil, the water from superficial wells should not be drank. The fact that typhoid fever is the one zymotic almost equally fatal in town and country may be due to the use of water from very shallow wells by the rural population. The lower the well the more likely is its water to be free from microbes. I found in a very deep well that two kinds of water were present; near the bottom it was hard and comparatively free from bacteriological life; near the top it was soft, loaded with organic matter, and teeming with micro-organisms."[5]

[4] Archiv für Hygiene, vols. i. and ii., part 2.

[5] See Parkes' Hygiene.

Lectures

ON THE

OPERATIVE TREATMENT OF ENLARGEMENT OF THE PROSTATE.

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LECTURE II.[1]

THE operations that have been performed for the relief of prostatic retention may be divided into palliative and radical. The former do not require mention, except in so far as they provide a standard by which the others are to be judged. Supra-pubic tapping and perineal drainage are the simplest. Supra-pubic cystotomy with the same object was performed by Sir H. Thompson as long ago as 1869. Recently McGuire of Richmond has modified the operation by making the fistula run obliquely from the bladder to the upper end of the cutaneous incision; and Morris of New York has still further improved upon this by lining the channel with two flaps of skin transplanted into it from the sides. In some instances the patient appears to have been able to dispense with a permanent drainage-tube, and has managed fairly well by passing a catheter down the new route occasionally, and in a few even this has not been necessary. Bennett May has shown that where there is a large intra-vesical growth a supra-pubic drainage-tube cannot be borne, owing to the irritation it causes; but in other cases there is no doubt a very fair degree of comfort may be obtained in this way, and many patients are exceedingly enthusiastic about it, but their praise is rather discounted by comparison with the misery they were suffering before. Of radical operations there is a great variety, not all of them deserving the name. Iodine, ergotine, and other substances have been injected into the gland itself, but the practice is not without danger, and it has not been shown that any permanent benefit has been derived from it. Galvanism and electricity have been employed in many ways. Newman of New York speaks very highly of superficial cauterisation of a mucous membrane by means of instantaneous flashes of the galvano-cautery. Biedert first, and later Casper and Roux, claim to have effected some reduction in size by introducing the negative pole of a battery through the wall of the rectum into the substance of the gland. Casper made use of a current of twenty milliampères and prolonged the sitting for fifteen minutes, changing the position of the needle from time to time. Roux used a much stronger current, so that there was severe pain. Biedert found great improvement in one out of five. Casper claims to have cured two out of four, but the amount of residual urine was very considerable still, and in one

[1] Delivered at the Royal College of Surgeons of England on June 1st, 1892.

there was a rectal fistula. Of Roux's six patients one did not return, one was under treatment still, and in four there was a sensible diminution. Many sittings, however, were required; other treatment was employed at the same time; and no evidence is brought forward to show how far the improvement was due to the electric current. Reduction in size has often been noted after simple puncture.

Penile operations.—Gouley of New York has recently revived Mercier's method of incising the prostate or punching out pieces from it with a prostatectotome, through the urethra, using an instrument which differs chiefly from Mercier's in the greater inclination of the back of the male blade to the shaft (so that it rides more easily over the obstruction), and in the edge being flattened instead of sharp. He finally expresses himself, however, as in favour of the perineal route; and as part of the after-treatment consists in introducing a catheter every day for the sake of irrigating the bladder and maintaining the patency of the opening, it is difficult to see where the benefit lies. Four cases operated upon in this way by Swinford Edwards all relapsed within a few months; and in two in which the operation was repeated the period of relief was shorter the second time than it was the first. Bottini makes use of the galvano-cautery, applying it by means of a special instrument directly to the obstructing mass. According to the latest account he has operated upon seventy-seven cases in all. Of these two died (it is only fair to say they were among the earliest), in twelve there was no result, in eleven some improvement, and in fifty-two complete cure. In addition to these a few cases have been operated upon in England by Bruce Clarke and Harry Fenwick. Unhappily, no definite account as to the condition of the bladder before and after the operation accompanies any of these statistics; it is merely stated that the residual urine ceased to collect, or was very greatly reduced in amount—a result which is not uncommon for a time, without any operation, in patients who have previously neglected themselves. On the whole, it seems more satisfactory than Mercier's, and it is not so likely to be attended by hæmorrhage (which has been known to prove fatal on more than one occasion), but it shares with it the very grave disadvantage of being performed altogether in the dark, without any exact knowledge about the size, shape, or position of the obstruction. It is useless for advanced disease; or if the lateral lobes are enlarged or if the growth projects upwards into the bladder, the form which, above all others, causes the most distressing symptoms. If the obstruction is confined to the posterior wall of the urethra, just at the neck of the bladder, and has not caused thickening of the lateral lobes or elongation of the canal, it can be dealt with in this way, so far as immediate removal is concerned, provided, that is to say, the condition is diagnosed and the symptoms are sufficiently severe to require it—a combination which is not usual; but even if the immediate result is successful, it is very doubtful if the improvement would be permanent. For a cure to be lasting either the glandular tissue that is left must undergo fibroid transformation and cease to spread, or the amount removed must be sufficient to leave a channel too wide and too capacious to be closed by any ordinary form of overgrowth.

Prostatectomy in the course of lithotomy.—The number of cases in which portions of the prostate have been removed is very large; in most it has been accidental, a pedunculated median lobe being caught in the angle between the blades of the forceps and torn away, or a rounded mass shelling out from its bed under the pressure of the finger. In others, however, it has been done of set purpose after exploration with the finger. More rarely the lateral lobes have been torn away as in Dittel's case, in which, while extricating a calculus by the median route, at the third attempt he pulled out both, together with a stone. In a few of these cases there was permanent improvement in micturition, notably in Landerer's, in which the patient was enabled to dispense with the use of a catheter, which before had been necessary; and none seem to have been in any way the worse; but in the majority there was no difference one way or the other. Nor is this to be wondered at. In nearly all the part removed was either a pedunculated median growth or an isolated tumour that was accidentally exposed and sometimes divided by the lateral incision; but it is quite the exception to find either of these conditions developed sufficiently to act as an obstruction without at the same time great modification in the rest of the gland. It is true, as Thompson suggests in the account that he gives of his own four cases, that the muscular coat of the bladder may never have recovered, but certainly in most it never had the chance; the whole, or even the greater part, of the obstacle was not removed.

Perineal prostatotomy and prostatectomy.—The perineal operation consists in opening the urethra at the apex of the prostate, exploring the canal from the interior, and then dealing with the obstruction according to what is found. It may be divided and split open, or transfixed and excised. Isolated growths may be shelled out; sessile portions may be punched out with a prostatectotome, or the galvano-cautery may be used. It is plain at the first glance that this method must be much more thorough than the penile, but it is equally clear that it must fail in the majority of cases. The anatomy of the part is against it. A small pedunculated median lobe can be removed, or a V-shaped channel punched out; but this is the limit, and cases that require operation and present no more serious obstruction than this are few and far between. Nothing can be done for the lateral lobes; vesical growths, which often cause as much irritation as phosphatic calculi, are quite out of reach; and a median lobe of any size requires such an amount of manipulation (especially as in these cases the urethra is usually compressed into a slit) that the tissues around would be bruised and crushed beyond recovery. In one case that was under my care a fatal result followed ten weeks after the operation from this cause; the wound was never repaired, the cavity could not contract, the walls remained covered with sloughing shreds, and the patient sank from exhaustion. Not only the width but the length of the urethra is against it. If the neck of the bladder is distant more than three inches from the perineum, the finger cannot reach into it to explore it. So long as the perineum is soft and yielding an extra half inch can be gained by passing a sound through the wound by the side of the finger, hooking it against the trigone and pulling it down; but if the increased distance is due to fat in the perineum or to overgrowth of the lateral lobes this is of no avail. Watson, in his monograph on the operative treatment of the hypertrophied prostate, states that out of thirty specimens taken from a museum, he would have failed to reach the bladder in one third. McGill put the proportion, and I believe correctly, very much higher. According to him, in only three out of his first twelve cases would it have been possible to remove satisfactorily the projecting portion of the prostate by the perineal route.

Results.—Excluding those cases in which portions of the prostate were removed during lithotomy (though as none of them proved fatal, they would tend very considerably to lower the death-rate), I have been able to collect particulars of thirty-eight cases. Of these, three died—one, eighty years of age, from uræmia on the third day; a second, from either iodoform poisoning or uræmia on the tenth day; and the third, the one I have already mentioned under my own care, from exhaustion and secondary hæmorrhage in the tenth week. Of the rest, in one case the operation was not completed, and in another there is no note as to the final condition. Seventeen are described as cured, and sixteen as benefited or improved. These results, however, are capable of further analysis. Simple incision in the median line behind seems almost as useless as the urethral operation, and for the same reason. The few cases that have derived any benefit from it probably owe it to the congestion having subsided. Prolonged drainage after division, as recommended by Harrison, is much more satisfactory. It cannot act simply by mechanical dilatation; probably the more or less friable tissue of the prostate undergoes disintegration around it and then slowly heals over so as to leave a canal of greater width; but undoubtedly it greatly increases the chance of success. Of the eleven cases in which it is expressly mentioned, six are returned as cured and two as much improved. Two, however, were distinct failures; a third was very little benefited, and in one of the successful ones a small fistula persisted. Leaving this aside, however, the cause of the failure is of some importance; it is not now recurrence of the obstruction, but decline in the expulsive power of the bladder; the route was opened, and remained so, but the muscular coat was damaged beyond recovery. The fault this time was not in the operation, but in the operation having been delayed too long. Perineal prostatectomy has better results still. Of fourteen cases two (those already mentioned) died;

one was a complete failure, the growth springing from the anterior wall of the urethra and reaching into the bladder (it was subsequently removed by the supra-pubic method with complete success), and the remaining eleven were practically cured. One, it is true, suffered from a small perineal fistula afterwards; but as he was eighty years of age, and was relieved by the operation both from the hæmaturia and the frequent and painful micturition which he had endured for years, the result cannot, I think, be considered a bad one. One other could not empty his bladder thoroughly, although his condition was so far improved that incessant dribbling was replaced by voluntary urination at intervals of three or four hours. But these were the only exceptions. Occasionally, but not nearly so often as is usually believed, a small median outgrowth is found acting like a valve. Complete retention comes on suddenly in an old man who has not been conscious previously of any serious urinary trouble. A catheter can be introduced without difficulty, showing that there is no congestion, but not a drop of urine can be passed without its use. Such instances are rare, but they do occur, and they can be diagnosed. One such I have met with myself, and the result of removal of the growth through the perineum was most successful. Sometimes, too, the enlargement is so shaped that a wedge can be excised or punched out, or even burnt away from the posterior lip; and occasionally both these conditions are met with in the same subject, but this I believe to be the limit for the perineal operation. If the lateral lobes are much enlarged, either the urethra is compressed into a slit or so elongated that the finger cannot reach the bladder. Vesical growths are quite out of reach, and masses of any size, even if they are pedunculated, cannot be extracted without inflicting a most injurious amount of bruising. Of the fourteen prostatectomies I have been able to collect, certainly one of the two deaths, and one failure, must be put down to the fact that the method adopted was unsuitable.

Dittel's operation, or lateral prostatectomy.—The difficulty of dealing with the lateral lobes through the prostatic urethra, which is practically insuperable, has given rise to another method which, although it is not likely to meet with general acceptance, deserves mention, as it has been practised with some success by Küster. It was first devised by Dittel, who, however, only tried it upon a dead subject, and it consists in excising a wedge-shaped piece from the under or posterior surface of each lateral lobe with the view of making their inner surfaces recede from each other and leave the urethra open. The patient may be placed either in the prone or the lateral lithotomy position. The bladder is emptied, a catheter tied in, and the rectum filled to establish its position and avoid injury. The external incision is carried from the tip of the coccyx around the sphincter ani, on one side, laying open the ischio-rectal fossa. The rectum is separated from the right lobe of the prostate, and the latter carefully exposed. A little further dissection beyond the middle line enables the same thing to be done upon the other side; and then as soon as the bleeding has ceased and a good view can be obtained a wedge-shaped piece is removed from each. This was proved by actual demonstration on the dead subject to be capable of relieving prostatic obstruction when due to increased thickness of the lateral lobes: it allows their urethral surfaces to fall apart and restores the shape of the canal, which is practically flattened into a narrow slit. Küster has performed this operation upon three occasions with a certain measure of success. In one only was there much bleeding; but in one the membranous part of the urethra was opened unintentionally, and in one the vesicula seminalis of the left side was cut into. In two instances (in both of which the urethra was opened during the operation) fistulæ persisted, though in one it is true that the opening was very small; and in one the residual urine still amounted to 50 cc. As the lateral lobes can in general be dealt with quite as well, if not better, from the interior of the bladder, it is not likely Dittel's operation will be frequently required, though now and then a case may occur in which supra-pubic prostatectomy is indicated, but is practically impossible owing to the small size of the bladder and the rigid character of the walls; but it is of interest as showing the great importance attached by him and Küster to the usually neglected lateral lobes, and the necessity, if the operation is to be a radical one, for dealing with them thoroughly.

INTRAVENOUS INJECTION OF "NORMAL" SALT SOLUTION FOR THE GRAVE HÆMORRHAGES OF MIDWIFERY.

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THIS paper is an account of eight cases in which "normal" salt solution has been injected into the veins for the treatment of grave hæmorrhage unrelieved by ordinary remedies. The cases occurred amongst 10,000 labours attended in the out-door maternity of University College Hospital from July 1st, 1887, until Jan. 11th, 1892. They are the only cases amongst that number in which the operation has been performed, and they include all cases of death from hæmorrhage—with or without injury to the parturient canal, "exhaustion," "syncope," or "shock"—with the exception of four patients who died either unexpectedly or before I could be summoned.[1] I was led to inject "normal" salt solution in quantity for the treatment of hæmorrhage in 1888 by a conversation with my friend and colleague, Dr. J. Rose Bradford, who informed me of the very large quantities which had been successfully injected into animals by physiologists, and by the fact that small quantities had already been injected by some of the staff of University College Hospital, although, I believe, without success. I was till a few weeks ago unaware that the treatment had been previously employed for hæmorrhage in the human subject, but find that Landerer,[2] on July 10th, 1881, injected a litre of normal salt solution into the veins of a patient aged seventy-one, suffering from shock and hæmorrhage after amputation of the thigh. The patient temporarily improved and recovered consciousness, but died an hour later. On Oct. 8th, 1881, Bischoff[3] successfully treated a case of post-partum hæmorrhage by injecting 1250 cc. of normal salt solution into the radial artery. Recently cases have been published by Hermann Thomson,[4] Mr. W. H. Brown,[5] Mr. Arbuthnot Lane,[6] and others. The literature of the subject of intravenous injection of "normal" salt solution, which, on the experimental side, is somewhat copious, may be found quoted in the references I have given. It is right here to remark that to Goltz[7] is due the credit of showing that the cause of death from hæmorrhage lay, not in the loss of corpuscles or hæmoglobin, but in the loss of fluid and the consequent incomplete filling of the heart, and that as long as the blood could be kept moving by injection of fluid life could be saved. Kronecker and Sander[8] were, I believe, the first to suggest the injection of normal salt solution for this purpose in animals. I trust that the following cases will afford evidence of the value of the treatment in hæmorrhage in the human subject:—

CASE 1. *Multipara; adherent placenta; severe post partum hæmorrhage; fetid ischio rectal abscess at time of labour; transfusion of thirty ounces of saline fluid; recovery.*—On April 24th, 1888, I was called by my assistant, Mr. L. de Chazal, to a case of severe post-partum hæmorrhage. The following are the notes of the case. Mrs. G——, aged thirty-seven, is naturally a strong plethoric woman. She has had five children and one miscarriage. Five years ago she was attended at University College Hospital for placenta prævia. Three years ago she nearly lost her life from post-partum hæmorrhage caused by an adherent placenta. She has since had a child normally. In the present pregnancy her only complaint was that she had not been able to sit down without pain for the past month. The present labour was normal in the first and second

[1] The cause of death in these four cases was—1. Accidental and post-partum hæmorrhage; the patient, thought to have safely recovered, died suddenly of syncope. 2. Post-partum hæmorrhage (one pint); the patient, thought to have safely recovered, died suddenly of syncope. 3. Accidental and post-partum hæmorrhage (same patient as Case 4 in the paper); died before I could be summoned. 4. Perforating laceration of cervix, with hæmatoma of the broad ligament; patient died before I could be summoned.

[2] Virchow's Archiv, 1886, No. 105, p. 357.
[3] Archiv für Gynäkologie, 1881, No. 23.
[4] Deutsche Medicin Wochenschrift, 1891.
[5] THE LANCET, vol. i. 1889, p. 527.
[6] Ibid., vol. ii. 1891, p. 666.
[7] Virchow's Archiv, Bd. xxi.–xxix.
[8] Berliner Klinische Wochenschrift, 1879, No. 52.

stages, which were over in four hours. Directly after the birth of the child blood poured out with gushes in considerable quantity. As expression of the placenta could not be performed by the student, he (against regulations) gave a drachm of liquid extract of ergot and summoned the obstetric assistant, who arrived an hour and a quarter after the birth of the child. Attempts to remove the placenta had meanwhile been made by the student and a neighbouring practitioner, but without success, and the patient had during this time lost an enormous quantity of blood, which filled a chamber-utensil and soaked through the sheets and mattress. On the arrival of the obstetric assistant the patient was in a very grave condition, extremely blanched, the pulse very small and compressible, beating at the rate of 140 to the minute, but at times it could not be felt. The patient was extremely restless and faint, complained of nausea and retching, but did not vomit, was constantly throwing her arms about and wanting to change her position and to get fresh air, and yawned frequently. The pupils were moderately dilated, and she could see well; there were no noises in the ears; the mouth felt dry, and the patient craved for drink; the tongue was moist. Part of the placenta was found lying in the vagina, and the rest was removed by the hand, except a portion as big as a crown piece, which was very firmly adherent. The patient during this manipulation lost a small amount of blood, and as it was feared she was dying, no further attempt was made to remove the remaining portion. An intra-uterine injection of iodine solution having been given, I was summoned. On my arrival, four hours after the birth of the child, in addition to raising the limbs, hypodermic injections of ether and drachm doses of brandy had been administered every few minutes. The pulse was, as nearly as could be counted, 140 to the minute; but for a few seconds at a time it was quite imperceptible, and at best it could but just be felt. Within a quarter of an hour of my arrival the patient's condition got even worse. She began to get drowsy, answering only when addressed in a loud voice; the heart apex beat could not be felt, and the pulse was as bad as possible. I considered that the patient would die unless transfusion were performed. I therefore opened the right median basilic vein (the patient not feeling the operation) and injected thirty ounces of normal saline fluid at a temperature of 104° F. Two minutes after the fluid had begun to flow the pulse was felt to be stronger. As the flow continued the patient roused up, and she felt better and not so faint. The radial pulse could be *seen* beating; and at 12.50 P.M., when all the fluid had been injected, about fifteen minutes after the commencement of the operation, the pulse was regular, of normal size and fair strength, and 110 to the minute. Some colour had appeared in the patient's lips. All her symptoms definitely ceased, and she said she felt well and comfortable. At 1.15 P.M. the pulse was 110; at 1.30, 100; at 8 P.M. it rose to 120, but was not very compressible, and all the beats could be felt, and the patient was cheerful and comfortable. Ten hours after the operation half a pint of urine was drawn off and examined by my colleague, Dr. J. R. Bradford, and found to be normal and free from hæmoglobin. On April 25th, at 9 A.M., the patient had a rigor. I found an ischio-rectal abscess, from which I let out about three ounces of fetid pus, and after disinfecting with chloride of zinc solution dusted with iodoform. Next day I removed the adherent piece of placenta without an anæsthetic. The patient had slight fever during the puerperium, the highest temperature being 102·6° on the fourth day; it was practically normal on the eleventh day. She made an excellent recovery, although she remained pale for two or three months. The patient menstruated regularly from September, 1888, till February, 1890, when the courses ceased. She was in good health, and had a good colour when seen on Feb. 4th, 1892. This is, so far as I know, the first successful case of intravenous injection of normal saline fluid for hæmorrhage.

CASE 2. *Accidental hæmorrhage; transfusion; recovery; relapse; a second transfusion; recovery.*—Mrs. K——, aged thirty, multipara. On July 1st, 1888, at 1 A.M., the patient, who was nearly at the full term of pregnancy, suddenly lost a large quantity of blood from the vagina, and fainted several times in succession. She had not strained or injured herself to her knowledge. On the arrival of the obstetric assistant, at 1.30, the patient was pale, but the lips not blanched. She had just recovered from a fit of unconsciousness, in which she had been throwing herself about. The pulse was about 90 to 100, full and soft. The clothes were saturated with blood. She appeared to have lost from one to two pints. Bleeding had then stopped. The os was the size of half a crown; the head presented; the membranes were intact; no placenta could be felt. The membranes were at once ruptured and one drachm of ergot was given. Profuse hæmorrhage now occurred, and after an unsuccessful attempt at version the os was dilated by bags and the forceps applied, and a dead child delivered. The placenta was expressed, together with a moderate amount of blood and clots. The continuous hæmorrhage during the above manipulations had greatly depressed the patient, who had become extremely blanched, the lips being of an ashen hue; the pulse rose in frequency to 150 or 160, and gradually diminished in force till it was quite imperceptible, and the patient became unconscious, with insensitive conjunctiva and moderately dilated pupils; the heart sounds could only just be heard. This state of the patient had been reached by a steady downward progress, and in spite of the employment of all the usual remedies. On my arrival, at 3 A.M., I did not think the patient had five minutes to live. I at once opened the right median basilic vein, and in twenty minutes transfused thirty ounces of saline fluid. The patient was completely unconscious, and did not move when the incision was made. After ten ounces had been injected she recovered consciousness, expressed herself as feeling better, and conversed rationally. The pulse, from being extremely frequent and finally imperceptible before the operation, rapidly improved in force and volume, and stood at 110 at the end of the operation (3.20 A.M.). Dr. Deanesly watched the patient till 10.30 A.M., and took notes of the pulse every few minutes. During the last hour or two of this time the patient's condition again became grave, the pulse rising in frequency and failing in strength, so that at 10.30 A.M. it was almost imperceptible. I decided to repeat the transfusion in the other arm, and injected thirty ounces into the left median basilic vein. After this the pulse became stronger and steadier, and the patient looked and felt better. In the after progress the highest temperature was 101·2° on July 5th and 8th; on the 10th it was normal, and remained so. The patient remained anæmic for two or three months, but was able to get about. She was seen by me about two years afterwards in robust health. On Feb. 4th, 1890, she had a miscarriage at four months and a half, when she lost a good deal of blood. The hæmorrhage continued for six weeks. On Jan. 29th, 1892, she was alive and in fair health.

CASE 3. *Accidental hæmorrhage; transfusion of saline fluid; death.*—Mrs. H——, aged thirty-one, had had eight children in fourteen years without any difficulty. Her mother died from flooding in childbed. The patient suffered from prolapse of the womb, but was otherwise a strong, healthy woman. On Sept. 12th, 1888, she was up washing all day "hard at work." At 7 P.M. the pains came on "pretty strong" for an hour; there was no "show." At 8 P.M. the pains ceased and she fainted. The student in attendance found the abdomen very prominent and distended, and the membranes intact. As he could not make out the presentation, the obstetric assistant was summoned and a little brandy administered. At 9.45 the patient was seen by the obstetric assistant. She had recovered from her faintness. There had been no external bleeding; the pains had not returned. The uterus, which was prominent and much tilted forwards, was very tense, and external examination was difficult. The uterine souffle was very loud and the pulse 88. She complained of a good deal of pain all over the front of the abdomen, no special point being indicated. There was no history of any sudden pain. The os was very high up, the edge thick and soft, of the size of half a crown; the membranes intact, but not tense; the vertex presenting. The patient looked a strong, healthy woman, not blanched or appearing any longer faint. Twenty drops of laudanum and rest were ordered. She was left at 11 P.M. At 11.35 external bleeding occurred in considerable amount. At 11.50 the student arrived, and found a large amount of blood in the bed, and a copious flow occurred on vaginal examination. At 12 midnight the obstetric assistant saw her, thought the membranes were ruptured, and made strong pressure on the uterus by a binder; the external bleeding had ceased. At 12.30 she was seen by me. She was lying on her left side, quiet, and speaking rationally, with an occasional parturient moan. She answered only

when spoken to in a loud voice; said she felt faint and a little sick. She vomited once, and retched a good deal. In looking at her as she lay on the shady side of the badly lit room there was nothing to attract particular attention. She was not at all restless, and had scarcely any pains. She had lost about a pint of blood. I had a good light thrown on her face. It was quite white, the lips being of a pale ashen colour. She was quite pulseless on both sides. The heart was beating 148 to the minute, but only one sound, apparently the second, could be heard. The uterus was very tense; the os as big as a crown-piece, easily dilatable; the head in the fourth position; the membranes unruptured; no placenta to be felt. Recognising her almost hopeless condition, and that she was bleeding internally, I at once ruptured the membranes, a considerable quantity of bloody fluid escaping. I then applied the forceps and easily delivered the child, without rupturing the perineum. The body was easily extracted, and was followed by the placenta and some large adherent and loose clots, and, I should say, a pint and a half of fluid blood. The uterus contracted well and remained hard, with the exception of a momentary relaxation which permitted the escape of a couple of ounces of blood. The patient was now a little restless. The head was lowered, the legs raised and bandaged, the binder tightly applied, and brandy given her. Once or twice she raised her arm above her head and partly rolled over, and said quietly "Can't I have some air?" She now became deaf and rapidly became unconscious. The pupils were moderately small, as they had been all along. I at once opened a vein in the right arm. When the cut was made through the skin she murmured, "Who's that pinching me?" and then lay quite quiet as if dead. Before two ounces had been injected her face became set with a hideous grin, lasting a few seconds; then a few clonic contractions of the face and slight ones of the arms and legs appeared, and she was dead.

(To be concluded.)

A MODIFICATION OF THE OPERATION OF PARTIAL OR COMPLETE EXCISION OF THE TONGUE.

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THE suggestion which I am going to make in this brief communication is possibly one that is already familiar to some surgeons; but as I have never seen it used or heard of its use, I think it is of sufficient importance to bring it before the profession. Though it is but a trifling modification of the usual methods adopted, I have found it of the very greatest service not only in diminishing the pain and discomfort which are usually experienced by the patient after these severe operations on the tongue, but also in lessening the danger of pneumonic trouble by the small amount and inoffensive character of the discharge, and in hastening very considerably the process of recovery. The mucus which collects in the mouth and pharynx can also be removed without the patient experiencing any considerable pain, since the sponge is not applied to any raw and sensitive surface. In some cases also the patient retains a fair proportion of the sense of taste. In the case of removal of a half of the tongue the suggested modification consists in the very accurate suturing of the cut margin of the mucous membrane on the dorsum of the tongue to the edge of that covering the floor of the mouth in such a manner that no raw surface is left uncovered by mucous membrane. In some cases it is necessary to alter the form of the portion of the tongue left, so as to make it fit the gap left with perfect accuracy. This is, however, easily met by a little ingenuity, and assistance may often be obtained by loosening the mucous membrane from the floor of the mouth and gum. When it is necessary to remove the body of the tongue, after carefully defining the extreme limits of the growth and giving it a wide margin, a large flap of mucous membrane with a substratum of muscular tissue is sliced off from that portion of the tongue which is of a certainty free from growth, and this flap is accurately sutured with fine silk sutures to the free margin of the mucous membrane in the floor of the mouth, and to that covering the root of the tongue, in such a manner as to cover the whole of the raw surface of cut muscle which is left exposed by the removal of the tongue. This procedure would, of course, not be adopted if there was any chronic inflammation of the mucous membrane, which might form the starting-point of malignant disease; but even in these cases the mucous membrane covering the under-surface of the tongue is probably unaffected, and it is surprising how large an area of raw surface a small portion of mucous membrane can be made to cover. The very vascular flap of muscle and mucous membrane unites with remarkable rapidity to the subjacent raw surface, and in this manner within a few hours of the operation the floor of the mouth is covered by a smooth layer of mucous membrane, instead of by a large inflamed or granulating area discharging abundantly a secretion which rapidly decomposes, and which may be, and often is, readily sucked into the larynx and air passages, where it produces trouble with which we are only too familiar.

As illustrations of the mode of application of this method I will give only two cases, the following brief descriptions of which are, I think, sufficient to indicate its advantages.

J. S——, aged fifty, was admitted into Job ward under my care on June 26th, 1890, suffering from a deep epitheliomatous ulcer in the right margin of the tongue in the middle third of that organ. The growth had started in a gumma which had not been treated. There were two or three small glands to be felt in the right submaxillary triangle. These were removed and the lingual artery was tied. The right half of the tongue was removed, with the exception of a portion of its posterior part. The remainder of the tongue was so altered in shape by small incisions that when the mucous membrane covering its dorsum and under surfaces was attached by sutures to that covering the stump of the right half of the tongue and that lining the inner half of the right half of the body of the jaw no raw surface was left exposed. Within forty-eight hours of the operation these margins appeared to have united. Certainly at no period did any gaping or yielding take place along the lines of suturing. The well-being of the patient after the operation, as regarded freedom from discomfort or pain, the absence of discharge, the ready manner in which mucus could be painlessly, or almost painlessly, removed by sponges from the mouth and throat, together with the very rapid convalescence, was remarkable as compared to the usual course pursued by such cases.

T. O'B——, aged forty-five, was admitted into Job ward, under my care, on Dec. 9th, 1890, suffering from an ulcerating epitheliomatous growth involving about a third of the diameter of the tongue in its middle third, and extending slightly over its margin to the mucous membrane covering the floor of the mouth. A small gland could be felt in the submaxillary region on the same side. On Dec. 19th the right lingual artery was tied, and three small glands were removed from the submaxillary region. Eight days after, tracheotomy having been performed, the right cheek was split back to the anterior margin of the masseter in order that free access might be obtained to the floor of the mouth on that side. A carefully-planned flap of mucous membrane and muscle was then cut from the left side and tip of the tongue, every care being taken to keep at what appeared to be a perfectly safe distance from the margin of the growth. The rest of the tongue was next removed, and the flap was then accurately sutured into the floor of the mouth by means of silk sutures, which attached it to the divided margin of mucous membrane both in the floor of the mouth and along the alveolar margin, where it was necessary to remove the mucous membrane covering the floor and to that covering the closure of the stump of the tongue posteriorly. The subsequent course of this case was quite as satisfactory as that of the preceding.

I have used this method on several occasions, and in every case I have felt myself very well repaid for the time and trouble spent in perfecting the operation, and if used with discretion I can see no circumstances under which it could be other than of the greatest benefit to the patient. The increased duration of the operation is of very slight moment as compared to the advantages obtained by it, and in order to ensure the accurate approximation of the divided edges I do not hesitate to split the cheek or perform tracheotomy, although either of these measures might be unnecessary if one were satisfied with the ordinary mode of excision. The benefit gained counterbalances the slight extra risk.

Since writing this I have read the account of an operation

by Dr. Widenham Mansell,[1] for excision of the tongue in leucoplakia or cancer and the utilisation of a portion of the under surface of the organ to fill accurately the gap with the best possible results.

St. Thomas's-street, S.E.

SCORBUTIC HÆMATURIA IN AN INFANT.

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THE following case seems worthy to be put on record, as being an example of an extremely rare type of infantile scurvy. The clinical facts are as follows.

J. E——, aged seven months, brought from Leith on Feb. 11th, 1892. The infant has been losing flesh and energy for two months, and for the last month his urine has been red. The parents are healthy and tolerably well-to-do. They are very careful of the infant, and his home surroundings seem, on inquiry, to be quite satisfactory from a hygienic point of view. At birth he seemed quite strong and healthy. From birth to the present time he has been given condensed milk. During the first week of life he had nothing else. Then for a month or two months he had barley-water added to it. After that for about ten days he was given a little raw meat juice along with the condensed milk; but he did not like it, and it was therefore stopped. When the raw meat juice was abandoned (four months ago) he was given a pancreatised "infant's food," and on that, along with condensed milk and water, he has been fed exclusively since. He has been in the habit of vomiting about half of the food given to him. His bowels have always been regular and normal in their action. Of late he has been very restless at night; he has always sweated very freely on his head. He has never before had any illness, except that he was "feverish" and had a slight cough when his teeth appeared. About two months ago the infant was noticed to be very languid and to be getting thinner and paler. This has gone on steadily increasing. At the beginning of January the father, who was eating an orange, held it out to the infant. He made a wry face at first when he put his lips to it, but immediately afterwards he clutched hold of the orange with both his hands, and would not give it up until he had sucked a considerable amount of the juice. After doing this he was very sick. The parents were amused at his eagerness to suck the orange, but they thought they had made him ill by letting him have it, and therefore they have never allowed him to have anything of the kind since. About a month ago the urine was noticed to be bright red, and it has remained so ever since. The infant has suffered no pain of any kind, except occasionally "from wind." No special tenderness or bruise of any part has ever been noticed.

The infant is very languid and listless, with a pale, yellowish, earthy complexion; the gums are pale, and not at all swollen, and there are no ecchymoses on them. The lower central incisors are the only teeth through the gum. The fontanelle is large and the ribs beaded, but there are no further signs of rickets. The abdomen is normal; no tumour is to be felt, and the liver and spleen are not enlarged. The heart and lungs are normal; temperature also normal. There is no distinct tenderness anywhere on palpation or passive movement, but the child evidently dislikes being pulled about. There is no ecchymosis, and no swelling of any bone, or joint, or other part. The urine is of a bright-red colour. On standing, a copious reddish deposit takes place, but the clear urine which is left remains bright red; reaction acid. Much albumen found on testing with nitric acid and boiling. On microscopical examination the deposit is found to consist almost entirely of red blood-corpuscles. There are also a few leucocytes and blood-plates, but no tube casts, and nothing else of importance. The case was diagnosed as scorbutic hæmaturia due to improper feeding. The infant was ordered to have nothing but the following diet: (1) As much fresh cow's milk and barley water (equal parts) as he will take, every three or four hours; (2) a dessertspoonful of raw meat juice (prepared as advised by Dr. Cheadle) thrice daily; (3) a dessertspoonful of orange juice twice daily. No medicine.—Feb. 18th: For some reason the diet recommended was not given until the evening of the 13th. On the 14th the urine was quite free from any red colour, for the first time for a month. On the 15th it was somewhat pink, but since then it has been quite free from any tinge of red. It is now found on examination to be perfectly normal in appearance; there is not a trace of albumen, and no deposit is seen with the naked eye or under the microscope. The mother reports that the child is "very much better." He sleeps better, is more satisfied with his food, and has stopped vomiting altogether. He is also "much cheerier." His complexion has improved greatly, and he kicks about his legs while being examined in a healthy way which contrasts strongly with his former lassitude.—21st: Improving in every way. "Just very well." Urine remains quite clear.—29th: Still improving in every respect except that he is somewhat restless at night and sweats a little on the head. Ordered cream, to be added to the milk, and cod-liver oil emulsion.—March 14th: Sleeps well; sweating stopped. Oat flour once daily.—24th: Very well in every respect; has cut two upper incisors.—May 5th: Has continued to gain steadily in strength since last note, and now has a rosy complexion, firm limbs, and the general appearance of a thoroughly healthy child.

Remarks.—The specially interesting and, so far as I know, unique feature of this case is the fact that, with the exception of the general lassitude, the hæmaturia was the only apparent manifestation of scorbutus present. And yet there cannot surely be any doubt whatever about the diagnosis, in spite of the entire absence of sponginess of the gums, periosteal hæmorrhages, and the other well-known signs. Hæmaturia is a recognised symptom of infantile scurvy, although one which is met with only in a small proportion of cases. Dr. Cheadle reports[1] a case of "obstinate and unexplained hæmaturia," very like this one, which, however, was found to be associated with ecchymoses, œdema of the limbs, and sponginess of the gums, and which was clearly scorbutic. The absence of spongy gums in this case does not militate against the diagnosis, for not only is this condition not met with where there are no teeth, but Dr. Barlow has published[2] an undoubted case of scurvy in which two incisors had appeared (as in this case), yet the gums were quite unaffected. The diet in my case was one well fitted to produce scurvy. The child's craving for the juice of an orange is an interesting incident, and tends to confirm the diagnosis. A similar craving in an infant with scurvy, who clutched hold of an orange which was offered to it, and "then proceeded to souse its lips and nose in the juice," has recently been recorded by Dr. Northrup of New York.[3] Finally, we have here, in a marked and satisfactory degree, the "most important diagnostic of all, definite and rapid amelioration by anti-scorbutic regimen" (Barlow).

Edinburgh.

[1] A New Method of Excising the Tongue. (Read at the New Zealand Medical Association, Dunedin, 1890.)

[1] Artificial Feeding and Food Disorders of Infants, p. 193.
[2] Article "Scurvy" in Keating's Cyclopædia of Diseases of Children, vol. ii., p. 269.
[3] Archives of Pediatrics, Jan., 1892, p. 5.

A REPORT ON THE

COMPLETE ABANDONMENT OF THE OPERATION FOR REMOVING CALCULI ENTIRE FROM THE BLADDER,

AND THE METHODS EMPLOYED INSTEAD, AT THE CIVIL HOSPITAL, HYDERABAD, SINDH.

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(Concluded from p. 1235.)

The second method: perineal lithotrity.—When the diameter of the stone is too large for the screw of the largest lithotrite the urethra can readily admit, then recourse is had to the second or perineal method or perineal lithotrity. It is only a modification of the first method, which may be distinguished as "urethral" in contradistinction to "perineal." I do not think it will be considered a waste of valuable time to briefly review the various incidents which

led me to adopt the perineal method. When I took over charge of this appointment there was in the hospital a little girl about nine years of age, who had been lately operated upon for stone by the cutting method. When she was lying quietly on her back the urine collected in small quantities in the bladder, but when she assumed the perpendicular posture all the accumulated urine escaped with a rush. This case made such a profound impression on my mind that I determined to try some other operation. There were a few lithotrity instruments in the hospital; but some of them were old and of a very inferior sort, and none of them were fenestrated. However, by the kindness of the engineer in charge of the municipal workshops here, I got them as well fenestrated as could be expected from men unaccustomed to such work. The first case admitted was a young child about five years of age. She had a wide urethra for such a young child, and no dilatation was necessary. The operation was completed without a drop of blood having been lost, the water in the bulk of the aspirator not having been even tinged by it; there were no signs of irritability of the bladder after the operation, and its functions remained unimpaired. No more convincing proof of the good results attending the operation in this hospital can be given than the fact that the children refuse to keep their beds the morning after the operation. These facts have been brought forward not so much for their own importance, although that is a sufficient reason, as to render the one which is to follow much more conspicuous—viz., the fact that during the operation no auxiliary fluid could be retained in the bladder. This last-mentioned fact was my bugbear; and if I had not been driven to try lithotrity on females as the only operation which seemed fitted to preserve in their integrity the functions of the bladder, I would have been frightened to try the operation about to be described on males. It may be said, however, that we can do anything we like with children and they get over it, but the next case operated upon was an old woman at the other extreme of life. She had a very large stone, suffered from great irritability of the bladder, frequent and painful micturition, and her urine contained pus, and was very fetid. Now, although no auxiliary fluid could be kept in the bladder during the operation very little blood appeared at the meatus urinarius externus during the crushing of the stone, the bulb of the aspirator was only slightly tinged with blood during aspiration, and all symptoms of irritability of the bladder ceased with the evacuation of the débris. The functions of the bladder remained intact. The operation was in every way successful. But to show the success of the operation in all phases of life, as well as in healthy and diseased conditions of the bladder, I may be permitted to introduce also the case of a young girl about the age of fifteen, whose bladder was as irritable as in the preceding case. The fetor of the urine was overpowering during the operation, although disinfectants were freely employed. So penetrating was the odour that I felt it long after the operation was finished. The stone was also a very large one. Now, although no auxiliary fluid could be retained in the bladder, the show of blood during the act of crushing the stone was very insignificant; during aspiration the fluid in the bulb of the aspirator was only slightly tinged with blood, for the débris could be seen falling down through it. All symptoms of irritability may be said to have ceased with the final washing out of all the débris from the bladder. Its functions remained intact after the operation.

I could go on multiplying these experiences. Quite recently I operated on a child about six years of age, using a No. 5 lithotrite with a No. 6 catheter. The débris was evacuated without so much as the appearance of blood in the bulb of the aspirator; and the functions of the bladder were left completely unimpaired, and the child was playing next morning in the verandah as if nothing had happened to her. But now enough, I think has been put on record to justify the establishment of the following proposition: That lithotrity in the female can be successfully performed in the absence of auxiliary fluid in, and even in the presence of a high degree of irritability of, the bladder without disturbing its functions in any way. The truth of this proposition being established, it next occurred to me that an operation similar to this could be performed on males whose urethræ were too small to readily admit the lithotrite, whose screw coincided with the diameter of the calculus. The narrowest part of the male urethra is the membranous portion; it is only necessary, therefore, to slit open this part of the canal, and the remainder, the prostatic portion, offered no obstacle to the passage of larger instruments. The only step necessary, therefore, to make the operation in the male almost similar to that in the female, was to make a direct opening through the perineum into the membranous portion of the urethra, large enough to admit a lithotrite whose screw was long enough to embrace the diameter of the stone to be crushed. I had contemplated the possibility of the perineal method long before the experiences recorded above were realised, although the idea of the impossibility of retaining a sufficient amount of auxiliary fluid in the bladder rose up and condemned the operation in my mind. Still the determination to risk any, rather than the cutting, method in the female, the unexpected success and brilliancy of results which attended my efforts at lithotrity in them—its beauty, simplicity, and perfection—urged me on to try a similar operation in males in whom urethral lithotrity was inadmissible on account of the size of the stone and narrowness of the urethra.

The operation suggested above is performed by me as follows: I introduce a grooved staff into the bladder in the ordinary way in operations for stone, then take a sharp-pointed narrow-bladed knife, and, holding the staff up against the angle of the pubes with the left hand firmly resting on the patient, insert its point at the angle formed by the root of the penis with the perineum, and push it upwards and slightly backwards into the groove of the staff, making slight forward and backward movements to make sure the knife has entered it, and keep it there. I then take a small director and push it alongside the knife into the groove of the staff, making with it also some decided backward and forward movements to make sure it is in the groove of the staff; then removing the knife, I push the director home into the bladder and withdraw the staff. Thus far there is no difficulty. That the director has entered the bladder is known in two ways. One can as a rule feel the stone, and urine escapes from the wound. An endeavour should now be made to find if that lithotrite will enter the wound whose screw coincides with the diameter of the stone, the size of which can be most accurately determined by previously measuring it by means of a lithotrite which the urethra can readily admit. If the wound in the skin and the membranous portion of the urethra is not large enough to readily admit this lithotrite, a probe-pointed knife must be introduced into the groove of the director and the wound slightly enlarged. Having fitted the wound for the lithotrite, its point is to be gently introduced along the groove of the director with the handle downwards. When the jaws of the instrument have been completely introduced into the wound, by simultaneous movements the director is withdrawn, and raising the lithotrite upwards to the perpendicular by a sweeping motion to the right, it is gently pushed into the bladder. If we let, by some accident, the director fall out of the wound and its walls collapse so that the bladder cannot be entered again, the best way out of the difficulty is to introduce the staff again, and we may get the director into its groove, and so into the bladder; if not we must make another incision, which is bad practice, although I never yet saw any untoward circumstance occur attributable to this contingency. The knife must not to pushed along the groove of the director in the direction of the bladder; if we do so the prostate will be in danger of being wounded and the great aim of the operation will be lost, its end and design being to preserve both the structure and the function of the prostate gland intact. There is, as a general rule, no blood lost after the introduction of the lithotrite and after it has begun to work, for the wound is in all cases exceedingly small, it is in the mesial line, and only capillary vessels are cut. The débris is removed in the ordinary way by the evacuating catheter and aspirator. In this method the aspirator is necessary, as the catheter remains more or less in the horizontal position during aspiration.

Urethral and perineal lithotrity dispose, therefore, of all stones whose diameters coincide with the screws, not only of the largest lithotrites that can be readily introduced through the urethra into the bladder; but also of all stones, except very hard ones that lithotrites cannot crush, whose diameters coincide with the screws of any lithotrite made, and yet preserve in their integrity the structure and function of the prostate gland.

By the perineal operation I have successfully removed

the largest stones whose diameters coincide with the length of the screws of the largest lithotrites that can enter the urethra; and, firm in the impression that lithotrites of much larger dimensions could be introduced into the bladder without injuring the prostatic portion of the canal after division of the membranous portion, and that this operation could be extended to yet much larger stones without in any way endangering its chief object, I ordered a perineal lithotrite from Coxeter and Son, Grafton-street, which is two sizes larger than the largest lithotrite the urethra can admit, together with a catheter corresponding in size. I have successfully commenced operations with this one, but I believe, as the calibre of the prostatic portion of the urethra differs in size in different individuals, I shall require a series of perineal lithotrites and evacuating catheters to perfect the parallel between the perineal and urethral operations. This problem will have to be solved by future experience.

The chief peculiarities of this new modification of the lithotrite are its length of screw (which, in order not to make the instrument abnormally long, derives its length by encroaching on the shaft), its massiveness of jaws and shaft, and the strength of the female screw. This last I have found to be the weakest part of urethral lithotrites. When I wrote out the description of the kind of lithotrite I wanted to Messrs. Coxeter and Son, I little thought I should receive an instrument so perfectly adapted in every way to the work it would have to perform. After it came into my possession only a few days passed before I had an opportunity of testing its merits. The patient was an old man about sixty, with a urethra so narrow that it would scarcely admit a No. 10, and when the stone was seized by it the screw was quite outside the box, and when the diameter of the stone was measured it was found to be a little over the length of the screw of even the largest urethral lithotrite. The idea of introducing such a large lithotrite by slitting up the meatus and running the risk of stretching the urethra could not in this case, or, in my opinion, in any other case of a patient so far advanced in age, be lightly entertained. In other hospitals the patient would have had to submit to some one of the usual three operations—the lateral, median, or supra-pubic. The small perineal incision was made, and scarcely any hæmorrhage occurred. The new lithotrite passed through the prostatic canal with the greatest ease, the anticipations about the capabilities of the calibre of this part of the canal to admit larger lithotrites being fully realised. The large instrument was as sensitive and as easily handled as could be wished. The first break was the loudest I have heard, as of course I had never before crushed such a large stone. After crushing the stone into small fragments the operation was finished by my favourite No. 10. It is my belief that the lighter and more sensitive the instrument used the more benefit to the patient. The wound was not too large for the No. 20 evacuating catheter, for no fluid escaped during aspiration from between its walls and the catheter, which invariably takes place if the wound is too large. The operation lasted about two hours, the delay being due to the phosphatic and adhesive quality of the débris of the stone and the consequent difficulty of separating it from the vesical walls. The stone weighed about two ounces. The patient passed urine freely by the penis after the operation, and continued to do so afterwards, the wound in the perineum being scarcely even wet during micturition. But the best proof of the success of the operation is the fact that the patient left the hospital cured on the third day after the operation, with the functions of the bladder and prostate intact, and the structure and function of the latter remaining unimpaired. It is reasonable to suppose that the sexual powers were not interfered with. I have now done seventy-six of these operations, with only two deaths.

The advantages of the operation may be briefly enumerated as follows:—1. Non-interference with the structures and functions of the bladder and prostate. This can be proved to demonstration. After the operation is finished and the débris evacuated with the large perineal evacuating catheter, introduce the nozzle of a syringe (= a No. 16 catheter) through the wound and empty its contents into the bladder; then, on withdrawal of the syringe, no fluid escapes; but if now the smallest evacuating catheter be introduced, the bladder will immediately empty itself through the catheter. 2. Smallness of the wound and no important structures cut. 3. No hæmorrhage to speak of. 4. The scientific accuracy with which the operation can be performed. 5. Urine as a general rule passes almost, if not entirely, by the urethra instead of through the wound; and it is always a voluntary act. 6. The bedclothes are kept dry. 7. Speedy recovery. 8. No danger of fistulous openings. 9. Absence of shock, unless the patient be old and weak, and with a large stone. 10. Non-interference with the sexual powers, as inferred. 11. Mortality comparatively favourable; two deaths in seventy-six operations, or 2·6 per cent.

Third method: hammer and chisel.—When the stone is too large for the largest-sized lithotrite, then recourse is had to the hammer-and-chisel method. This was the system adopted before I received my perineal lithotrite; now this method is employed only for those stones which are too large for it. The object of the operation is to remove the débris of the largest stones through an opening capable of admitting the largest lithotomy forceps with concave jaws, the amount of débris removed at each time being limited to that contained within the concavity of the closed jaws. The operation may be described as follows: An incision is made in the median line through the perineum into the bladder large enough to admit the largest-sized lithotomy forceps, with concave jaws. Having introduced the forceps and firmly seized the stone and handed the forceps over to the care of an assistant, I take a small-pointed chisel, and, introducing it parallel to and on the mesial line of the forceps, push it onwards until it is felt to be well planted against the stone, and, holding it so that it cannot pass beyond control, hit it firmly with the hammer. If it is a soft stone, a few firm little taps will be sufficient to crush it; if it is a hard one, more force will have to be used. In soft stones, when they are broken up—which will be known by the handles of the forceps coming together—the forceps should be withdrawn with the mouthful of débris contained between the closed jaws. But projecting splinters of hard stones must be carefully guarded against. If, by the finger in the rectum, they are found projecting beyond the lower side of the forceps, it must be partially opened and the projecting portion or splinter pushed within the concavity of the jaws of the forceps, or made to project on their upper side; then, firmly closing the forceps, I take a sharp, crescent-edged chisel, and introducing it as above, shave off the projecting splinter or splinters. By this method I have successfully removed from one patient seventeen ounces of débris. It is devoted only to very exceptional cases (4 per 1000), as is shown by comparing the number of stones in the museum of this hospital with the screw of my new lithotrite.

These methods which I have described above, for the removal of vesical calculi, have in my hands proved satisfactory, as being the operations attended by the least risks and with a very fair result as to mortality. I have performed in the present year 270 operations for stone. Since receiving my set of lithotrity instruments I have done 157 lithotrities with three deaths, seventy-six perineal lithotrities with two deaths, and twelve operations by the hammer-and-chisel method with four deaths. The proof of the success of the operations is seen in the fact that a much larger number of patients flock to the hospital now than formerly. In former years the average number of cases was about 180 per annum. Last year, up to the beginning of October, there have been 270 cases; and as the people come to take advantage of the new methods at an early date of their complaint, it is reasonable to suppose that the few exceptional cases (= 4 per 1000) of stones too large for the grasp of even my perineal lithotrite will become absorbed by them, and therefore the hammer-and-chisel method will also, along with the cutting methods, sooner or later become obsolete. As these methods will, with regard to the various terms used for the removal of stones by crushing, make "confusion worse confounded," I have taken the liberty of coining the following word for distinguishing the methods herein advocated — namely, "lithotritlapaxy," hence "urethral lithotritlapaxy" and "perineal lithotritlapaxy."

Hyderabad.

THE FORRES HOSPITAL, LEANCHOIL.—Sir Donald A. Smith, R.C., M.P., Montreal, a native of Forres, has sent a further endowment of £3000 to this institution. The first endowment was £5000, the second being promised on the completion of the buildings, which are now opened for patients. In addition to these endowments, Sir Donald Smith also paid £260, the cost of the site. The buildings, which are handsome and commodious, cover a considerable extent of ground, and are situated about a mile from Forres.

SEA-SICKNESS.

BY HERBERT DANVERS, L.R.C.P., L.R.C.S. EDIN., &c.

AFTER several years' experience as a ship surgeon I should be glad of an opportunity to chronicle my experiences of the above evil, which comes to most of us on leaving our native element. First, as to the cause: I consider it to be brought about by a mechanical irritation of the walls of the stomach due to contact of parts not usually in apposition with one another. The effect of this is to produce (*a*) reflexy stimulation of the vomiting centre in the medulla and directly a subacute gastritis, (*b*) diminished blood-supply to the head and neck (as seen in the extraordinary pallor of the face), and a disturbance of cerebral circulation, resulting in a general nerve starvation, evidenced by headache of neuralgic intensity. I would therefore for clinical purposes group all cases into three divisions, according as (1) head symptoms largely predominate, (2) gastric symptoms largely predominate, or (3), the most common, those in which one finds head and gastric symptoms equally combined in minor degrees, and which I propose to speak of as mixed cases. Cases of the first group I have found always among delicate nervous women, men in broken-down health, and young people of both sexes between the ages of twelve and sixteen. There is little if any vomiting, but they complain of the feeling of nausea, total anorexia, ringing in the ears, and intense headache either frontal, vertical, or as a constriction round the temples. Every object on board seems dancing about before their eyes; and in bad cases this continues for some days even after landing—they are utterly incapacitated, quite unable to leave the prone position, and occasionally even beg to be thrown overboard, as life has lost all charm.

Cases of the second group are seen chiefly among young women and men of the burly overfed or "liverish" types. They complain of constant retching, acrid eructations, and vomiting of intensely bitter green or greenish-yellow fluid; but their chief complaint is a total inability to keep down any food. They can sit on deck in their chairs and try to take some nourishment, which the stomach only retains a short while. Headache is present as a dull pain in the occipital region. To the third group belong the large majority of cases, in which neither headache nor vomiting is specially prominent, and who only experience a certain temporary amount of discomfort at the altered conditions for equilibrium; they can come down to meals but complain of having to leave hurriedly in the middle.

Next as regards treatment: In the first group of cases one is generally called in the day after sailing—the time when the headache &c. is most acute,—and invariably finds the bowels have not acted for at least twenty-four hours and the urine is very scanty and high coloured. Here I commence with a dose of calomel or an enema, and then give some form of nerve sedative, as bromide of ammonia with aromatic spirit of ammonia, antipyrin with chlorodyne, butyl chloral with compound tincture of chloroform, bromidia, or the effervescing hydrobromate of caffeine, which is my favourite remedy. Here I may mention an experience of nitro-glycerine for these cases. I was summoned on deck one afternoon to a passenger sitting in a chair with a very anxious, startled expression, and complaining of giddiness and cold hands and feet although it was an extremely hot day. His history was as follows: He was an hotel proprietor, and a phthisical patient who came out from England and stayed at his hotel had presented him with a sure cure for sea-sickness. The invalid had been given the prescription at home by the physician who ordered him abroad, but having had no occasion to use it on the voyage out, he presented the box intact to his landlord, who owned to being a very bad sailor. On this trip the landlord had recourse to the new remedy whenever he felt any headache, and altogether had taken "about a dozen of the little chocolate pills" since sailing that morning. The box was labelled "Tab. nitro-glycerine, $\frac{1}{100}$ gr each. One to be taken at intervals when necessary." He said he had no headache; the pulse was decidedly intermittent. However, the recumbent position, hot stimulants, and handing the "cure" over to me, effectually tided him over by night. I have not felt justified in making any experiments with this "cure," and should feel obliged if any therapeutist would explain the *rationale* of the drug. Diet ought to be an important part of the treatment in these cases; but, finding it nearly always impossible to get patients to take anything, I fall back on alcohol—administered in the form of champagne, sparkling moselle, or gin and potash water, with a dry biscuit. My contention is that the patient's view of life in general is already extremely morbid, and under an entirely depressant line of treatment this would be aggravated. Finally, I would insist on the necessity of getting patients either up on deck or in the ladies' boudoir at the earliest opportunity. Nothing is more fatal than to let them stew down in their cabins with only their melancholy thoughts for company. In cases of the second group I always begin treatment with a couple of glassfuls of warm water, which are promptly rejected, and then give a mixture composed of the following: carbonate of bismuth, bromide of potassium, dilute hydrocyanic acid, and spirit of chloroform; or bicarbonate of soda, carbonate of bismuth with chlorodyne; either prescription effectually allays the gastric irritability. In the cases, however, where nature suggests the remedy by a craving for lemons or lime juice, I give small doses of this mixture: dilute muriatic acid with the infusion of cusparia and spirit of chloroform shortly before an attempt is made to take any food. I have also found cocaine tabloids useful here.

Alcohol in any shape is unsuitable for these cases, causing further congestion of the already irritable mucous membrane of the stomach, which is evidently wrong. I give as little fluid as possible, and ice to relieve the thirst. Diet should be of the blandest substances—cornflour, sago, or tapioca boiled in milk, *weak* mutton broth or beef-tea, not taken too warm. Broths or beef-tea as usually made by a cook are bitter, unpalatable fluids, so I always order them made weak, and then a body given by boiling down tapioca in them. These cases should not be interfered with too soon, as the vomiting is undoubtedly nature's curative effort on a system overloaded with bile, produced by the series of farewell dinners and luncheons preparatory to sailing. A dose of white mixture (carbonate of magnesia, sulphate of magnesia, and essence of peppermint) in hot water the first thing one morning is a most useful finale. For the mixed cases I find some soda and compound tincture of cardamoms or nitro-muriatic acid and gentian during the day with a pill of calomel, colocynth, and hyoscyamus at bedtime, all that is necessary to make them come up smiling to breakfast next morning. They have found their sea legs by then. As regards diet generally, at first one always recommends plain grilled or cold meats, with toast or a dry biscuit, and some fruit, and for drink, weak tea with a slice of lemon (no milk), or whisky, or brandy-and-soda. Coffee and cocoa as a rule do not suit. I must mention, however, that I have seen such a variety of foods and fluids taken as "preventives," with apparent success, that the conclusion is forced on me that each one's palate is the best judge of what suits. "What is one man's food is another man's poison" is a wise saying which contains the experience of many generations, and, as Dr. Austin Flint very sensibly puts it, "Diet should be regulated by the appetite, the palate, and by common sense."

The foregoing remarks apply solely to large ocean steamers on which the passengers remain a week or more; but alluding now particularly to short trips on small vessels, I feel sure we do not possess any drug or combination of drugs which will act as a panacea in all cases of *mal de mer*; and think the practice of giving some powerful drug, hypnotic or otherwise, to anyone who dreads crossing the Channel a most reprehensible one. A *placebo* suits all the cases which would not be ill; there is a great deal in faith, and no drug will alleviate appreciably the sufferings of bad sailors in the course of an hour or two. It is entirely a question of how soon a system can adapt itself to the altered conditions for equilibrium. I have often seen an altered motion of the ship, pitching for rolling or *vice versâ*, upset passengers again who thought they had quite found their sea legs. Old tars off a sailing vessel have frequently been known to be sick on a steamer; and many a passenger off a big Transatlantic liner, who fancies himself a bit of a sailor, has had to part with his last meal when crossing over to France or Ireland in a little Channel steamer. The motion of a sailing ship and steamer is entirely different, and the difference in motion between a big ocean liner and a Channel steamer is as marked as the difference between a thoroughbred's stride and a Margate donkey's canter. In an excellent article by Dr. Burney Yeo,

on the "Cure of Pulmonary Tuberculosis," he holds as a first essential that the conditions of cure shall be present in the individual. So here I maintain that those who are not sea-sick have the conditions of cure in themselves, while those who suffer can only get over their trouble by steadily declining to leave *terra firma*.

CHLORIDE OF GOLD AS A REMEDY FOR COBRA POISON.

BY A. A. KANTHACK,
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IN a recent number of the *Annales de l'Institut Pasteur*,[1] Calmette states that he succeeded in neutralising and counteracting the effects of cobra poison on animals by means of chloride of gold. My attention was roused by this statement, because about nine months ago I had tried the same substance in India, but unfortunately with no result. It seemed reasonable to try it, as it had proved successful in the treatment of diphtheria artificially induced in animals. At that time I had tried the chloride locally only. I gather from A. J. Wall's book[2] that he also tried the same substance, but was equally unsuccessful. That chloride of gold neutralises and precipitates the albumose of cobra poison in a test tube is a well-known fact. Therefore, when a mixture of cobra poison and chloride of gold is injected into an animal no harm will result; but, of course, this is not a cure, as one might as well inject as much water into the animal. Calmette's experiments may be arranged under the following headings:—(*a*) injection of a mixture of cobra poison and gold chloride; (*b*) injection of a lethal dose of poison and gold chloride all round the seat of inoculation; (*c*) injection of a lethal dose of poison and gold chloride into a part some distance from the seat of inoculation; (*d*) injection of a lethal dose of poison and intravenous injection of gold chloride. For the latter he used 0·2 per cent. solutions of gold chloride, in all the other cases 1 per cent. solutions. The first series of experiments we need not discuss, as practically no poison had been injected. The second series may be subdivided into two classes. In some cases Calmette injected the chloride all round the seat of inoculation *immediately* after the administration of the poison, in others he waited five minutes and more. Of the former most survived, but not all—viz., nine out of ten,—of the latter many died: four out of five. It might be claimed that injecting the chloride immediately after the inoculation is hardly a fair test. However this may be, it is a significant fact that even under such favourable conditions at least one death occurred, and that after waiting a short time the percentage of deaths rose enormously. And if it be remembered that Calmette worked with comparatively small doses, it will be seen that even if the results were always equally good, yet for practical purposes the method will be of little use, if of any.

In India I performed a series of experiments similar to these, the results of which I propose to summarise here. (*a*) Three rabbits were inoculated with 1 cubic centimetre of cobra poison solution (sufficient to kill a rabbit in from one or two hours), and without removing the nozzle of the syringe 6 cubic centimetres of a 1 per cent. solution of gold chloride were vigorously injected. Two animals survived, but the third died after four hours—i.e., after a slight delay. (*b*) Three rabbits were inoculated as above, and gold chloride of the same strength as in the previous set of experiments injected all round the seat of inoculation after an interval of three, four, and five minutes respectively. All the animals died; one after three hours, the other two after an hour and a half. (*c*) Three rabbits were taken, and the skin over the abdomen shaven. They were then bitten by three different cobras, and at once 15 cubic centimetres of gold chloride (1 per cent.) injected around the seat of inoculation. All three died in from twenty to ninety minutes. It must be remembered that an inoculation by a strike from a cobra differs greatly from a cautious hypodermic injection; and in several cases I found that it was possible to cause a certain delay of the exitus lethalis while working with smaller doses and a syringe, after injecting some trichloride of iodine over the seat of inoculation; but when an animal was actually bitten no such delay occurred. Before, then, any procedure is pronounced as a cure, it should be tested under natural conditions.

On reading Calmette's paper I was naturally astonished at the discrepancies between his and my results. I therefore repeated some of his experiments lately at the Cambridge University Pathological Laboratory, using guinea-pigs and rabbits. (*a*) A guinea-pig inoculated with 1 cubic centimetre of a cobra poison solution (sufficient to kill it in an hour), and at once treated by injecting 4 cubic centimetres of gold chloride all round the seat of inoculation, survived. (*b*) Four guinea-pigs were inoculated with 0·75 cubic centimetres of the same poison solution, and at once 2 cubic centimetres of 1 per cent. gold chloride injected into each pectoral muscle and 2 cubic centimetres into each leg, so that the animal got 8 cubic centimetres of the chloride. All died, practically as quickly as the control animals. (*c*) Two rabbits were treated in like manner, and with like result.

From these experiments, then, it follows that what we may call the "remote" treatment with gold chloride is useless. I cannot offer any theory why Calmette should have succeeded in a certain percentage of cases. There may have been some difference in the poison used by him.

The gold chloride used in my experiments was perfectly fresh, and small quantities of a 1 per cent. solution completely neutralised the poison *in vitro*. The solution of poison used in my recent experiments was of such strength that 1 cubic centimetre killed a guinea-pig in from one to two hours, and 2 cubic centimetres killed a rabbit in the same time.

The most important experiments of the French writer are those where he prevented and inhibited the action of the poison by means of *intravenous* injections of gold chloride (0·2 per cent.) He succeeded in saving the lives of two out of three animals used. I repeated his experiments carefully on four rabbits. They succumbed as quickly as the control animals. I desisted from repeating his further experiments—i.e., of injecting the chloride some time after the poison—as, from his own results and my previous experience, I was sufficiently convinced of the futility of such treatment.

To sum up, I am not in a position to explain the successes obtained by Calmette, but find that gold chloride is of no use whatever as a cure against an inoculation with cobra poison, unless it is *immediately* administered, and even then it is not a certain agent. When the animal was actually bitten by a cobra it always failed to neutralise the poison. If we consider the conditions of an individual bitten by the snake, the necessary delay that must always occur before any treatment can be applied, and further, that a delay of three minutes is already fatal, we see the necessity of being extremely cautious before we allow false hopes to be raised in our minds. Analysing Calmette's experiments, I find that he experimented on twenty-two animals, of which three died. Of those twenty-two, three were treated with a mixture of poison and gold chloride, and naturally survived, and these three cases must be subtracted, as they practically got no poison at all. Thus we have nineteen animals treated, with three fatal results. Again, in estimating the practical value of his method, ten cases must be subtracted in which the chloride was given *immediately* after the inoculation and all round the seat of inoculation. But even of these one died. Thus of nine animals treated two ended fatally. Now, in one of these nine cases Calmette had given a very small dose, and it would be fairer to exclude this case, so that there were eight cases, of which two died. Adding to this list his second series of experiments—i.e., in which he allowed some time to elapse before he applied his curative agent, there were five cases in which the gold chloride was injected all round the seat of inoculation; and of these four died—i.e., thirteen cases treated, with six deaths. Two animals treated by a "remote" injection of gold chloride some time after the inoculation survived, so that the final result is fifteen cases with six deaths. He relates one further case treated by means of remote injections, but on referring to the original it will be seen that this case is open to doubt, as the animal had previously been treated with gradually increasing doses of attenuated poison. Calmette's success, therefore, can hardly be considered a brilliant or convincing one; but it seems surprising

[1] Vol. vi., 3, p. 100; see also Brit. Med. Jour., Weekly Epitome, April 23rd, p. 67.

[2] Indian Snake Poisons.

that he had any successes at all with the remote and intravenous injections, which here invariably failed signally. I am inclined to think, after a careful repetition of his work, that some experimental errors must have crept in somehow or other, but do not hesitate to pronounce gold chloride to be quite useless as a remedy for, or preventive against, cobra poison.

Cambridge.

A FEW PRACTICAL OBSERVATIONS ON THE TREATMENT OF ULCERS OF THE LEGS.

BY J. M. FINZI, L.R.C.P. LOND., M.R.C.S., &c.

As it has fallen to my lot to have an opportunity of treating many cases of ulcers of the legs, and almost always with success, I think a few notes of my experience may be found of use to the readers of THE LANCET, more especially when it is found necessary to carry out the treatment without the usual routine method of confining the patient to bed. I will pass over the general treatment by remarking that it should be prolonged and regular, depending on the constitutional predisposing cause, and that in most cases of an indolent nature a persistent course of astringent iron tonic is of great use, with total abstinence from alcoholic stimulants. Coming now to the local treatment, the principal objects to be held in view are the promotion of a healthy circulation in the limb, the relief of pain, and the production and maintenance of complete asepsis. To obtain the first result it is necessary in every case that the leg should be satisfactorily bandaged, and in order to get good results this should not be left to the patient or friends, but should be done by the medical attendant himself daily, every alternate day, or every third day, as the case may require. Rest and elevation of the leg when possible are, of course, useful adjuncts to treatment in many cases, and in a few essential; but I wish to lay especial emphasis on the fact that in many persons ulcers of the legs can be cured without in any way interfering with their ordinary avocations, and in some cases they seem to progress more rapidly when treated thus than when kept completely at rest. In dealing with indolent chronic and callous ulcers the usual treatment recommended for promoting the absorption of chronic inflammatory products is pressure, and this is generally recommended to be applied by strapping the ulcer, or by the use of the rubber bandage. I have seen cases treated by both methods in which the results have been highly unsatisfactory. We are all aware of the rapid healing of an ulcer that follows—I believe invariably—after an attack of erysipelas; and, guided by this indication, I would advocate the systematic production of a similar condition, though not of a septic origin, in indolent and callous ulcers. I would suggest that our endeavour should be to produce, in almost all, if not in all, cases of indolent or callous ulcer an inflammatory condition of the ulcer and of the skin immediately surrounding it—in fact, an eczema—by some of the means to be afterwards enumerated. I have been led to the foregoing conclusions by observing how rapidly ulcers become amenable to treatment after eczema produced by causes other than erysipelas—such as putrefaction of the discharges, and by local irritant applications. In my hands this treatment has been attended by a considerable amount of success, rapid healing taking place under sedative applications after the induction of this condition. It is obvious that the replacing of the chronic congestion of the ulcer and parts around by an acute hyperæmia must promote the absorption of the products of chronic inflammation, and with satisfactory results, where the process can be kept under control by the surgeon. The local applications used in dressing ulcers of the legs may be considered under three heads: those in which the medicament to be applied is dissolved in water, those in which it is applied in the dry state, and those in which it is mixed with or dissolved in or emulsified with some oleaginous material. As a rule, those cases in which water is used as the menstruum require very frequent dressing, and cannot be carried out satisfactorily without rest in bed. There are two subdivisions of this method—one in which the water is allowed to evaporate, in which case it becomes practically a dry dressing until the renewal of the application. By this method I have seen some very brilliant results, in one case in particular, in which a large ulcer completely encircled the leg; a rapid cure was effected by applying dressings soaked in a weak solution of liquor carbonis detergens and keeping them frequently moistened with the same. I have also seen a case of perforating ulcer of the foot cured by the frequent injection of a weak carbolic lotion, while applying weak iodoform ointment to the apertures, in conjunction with appropriate constitutional treatment. Water or watery applications applied like this sometimes cause eczema.

The second subdivision of this method is where the applications are covered by an impermeable covering, as in the ordinary water dressing or poulticing. This method is very soothing in some cases; in others it produces eczema, especially when applied to a sore which has been previously dusted with iodoform; and in others œdematous granulations when continued too long. Under this subdivision comes the application of rubber bandages—a treatment apparently very much in vogue, and by many used as a routine procedure in treating ulcers of the legs. I would suggest that treatment by this method is unscientific, as keeping the whole limb in a continually sodden and relaxed condition, when we only want to produce that effect locally in and around the ulcer. As a matter of fact, the elastic compression produced by it can be equally well obtained by using over the water dressing elastic bandages which will allow the evaporation of the perspiration from the skin. My experience of these bandages has led me to condemn them as a rule.

Under the second and third heads the dry and oleaginous applications, I would say that these are most useful when it is necessary for the patient to be about, and I generally make the applications to the ulcer direct, and cover with lint, or apply them to the lint before laying it on the ulcer; in either case several layers of lint are used, or else over the single layer of lint a mass of some absorbent and antiseptic material is placed, in all cases of sufficient thickness to prevent the discharge soaking through to the bandage during the interval between each dressing. Foremost among dry applications is the use of iodoform, and I find this one of the most useful applications for ulcers of the leg, especially when they are sloughing or spreading, and frequently when they are indolent. In a very large number of cases iodoform causes severe eczema of the surrounding skin, accompanied by much irritation and burning pain, with profuse watery discharge. This may come on after a single dressing, but very often does not appear till after several applications, and is the condition we require to produce in order to start the healing in callous and indolent cases. It is sometimes so violent, apparently in very intemperate subjects, as to promote the spread of the ulceration. In some cases iodoform causes an antiseptic scab at the edges of the wound where the discharge is not free enough to wash it away, and healing progresses rapidly underneath this scab. A thin coating of iodoform, and that in the crystalline form, is the best application. Iodoform immediately relieves the pain in cases of gangrenous ulcer. All ulcers in which there are exuberant granulation or a fungous condition require dry and absorbent dressings with or without the usual astringent applications, also firm bandaging.

Lastly, I come to consider the oleaginous applications, and these may be roughly divided into the stimulating and sedative—the former for cases in an indolent condition, the latter for those in a healing, inflamed, or eczematous condition. Of the former, the blister is one of the most powerful and rapid means of procuring the inflammatory condition previously mentioned, and is not so painful as one would expect in these cases. Then iodoform mixed with lanoline, vaseline, or lard is very irritating if used sufficiently strong. Carbolic oil or an emulsion of solution of coal tar with oil; the official ointments of tar, resin, eucalyptus, salicylic and carbolic acids, and red and white precipitate, are all very useful. The last two are also very beneficial in eczema. Among the sedative applications are emulsions of lime water or saturated solution of borax with olive oil or linseed oil, and of liquor plumbi subacetatis with oils, the ointments of zinc, oleate of zinc, calamine, boric acid, acetate and carbonate of lead, and especially bismuth. An ointment composed of equal parts of oleate of bismuth and paraffin molle I find one of the most soothing applications that I know of, and one that

will rapidly finish the healing of an ulcer which has become stationary under other methods of dressing. In the use of ointments it is necessary to spread them thinly on the lint, otherwise they cake and obstruct the flow of the discharge.

Sutherland-avenue, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SOME BURSAL AFFECTIONS.

BY REGINALD H. LUCY, M.B. EDIN., F.R.C.S. ENG,
ASSISTANT SURGEON, SOUTH DEVON HOSPITAL, PLYMOUTH.

HÆMORRHAGES and sudden serous effusion into the cavities of bursæ have not received much notice or the attention they deserve. Hæmorrhage into a bursa is traumatic in origin, and may follow (*a*) contusion or (*b*) severe and sudden movement of a joint over which the bursa is situated. The sacs most liable to this injury are, in order of frequency, (1) the two pre-patellar, subcutaneous and subfascial; (2) that over the olecranon process; (3) that over the tuber ischii; and (4) the subacromial bursa. The position of these over bony surfaces or "points" favour the production of this condition.

In support of these statements I append the following cases as typical of the two chief causes:—1. An old man, aged seventy, a month before coming under notice fell and struck his buttock. A swelling over the right tuber ischii quickly appeared, which has remained the same size, the skin over it now being red and œdematous. On incision the tumour was seen to consist of a glistening cavity lined with blood clot, which was turned out and drainage established. It would not close, so the bursa was excised, and the patient made a good recovery. (2) A coalheaver, aged forty, when lifting a weight, felt a "click" in the right elbow, and found a soft swelling at the point of the elbow. This "hardened" on the way up to the London Hospital, and on admission I found a tense, painless swelling in the situation of the olecranon bursa, which on palpation was felt to contain clot. The history here was so circumstantial that I regarded it as a case of hæmorrhage into a bursa following exertion. In a similar manner a fall on, or the impact of a falling body on, the point of the shoulder causes the subacromial bursa to fill; subsequent crackling on active or passive movement has led to the diagnosis of "fractured anatomical neck" &c.

Signs and symptoms.—The subject of hæmorrhage is important because the signs accompanying the presence of blood in bursal sacs are those which would lead us to confidently expect pus, and I have seen many cases of enlarged bursæ treated by incision when the sole contents were blood in various states of change, or merely serum more or less blood stained. Following a blow, fall, or severe strain, a swelling appears in the anatomical position of a bursa; this enlargement comes on rapidly—usually in a few minutes,—and patients tell you that the lump has been "the same size ever since the fall &c.," a most important point in the history. On palpation fluctuation is readily obtained with a certain amount of pain and tenderness, especially when caused by contusion; in a few days redness and œdema of the skin over and round the bursa appear, and we have the classical cardinal signs of inflammation ("tumor, dolor, rubor, calor") present, but as we shall afterwards see not pus but "cruor." The thermometer is here our best, though not an infallible, aid. In hæmorrhage pure and simple, although the signs of suppuration appear so unequivocal, we find the temperature rarely above normal. Relying on signs alone, I have seen many bursæ opened as abscesses, to find nothing but a blood clot or serum, with, in some cases, such as the pre-patellar bursæ, thin pus in the subcutaneous, but blood-clot only in the thick-walled subfascial, cavity, analogous to the so-called "reflex abscesses" outside a joint the seat of commencing disease. It is in these cases that ecchymosis is not present; when it is, no doubt exists as to what composes the tumour contents. Crackling or rubbing is a sign especially marked on palpating a subacromial bursa filled with blood-clot. The so-called "melon-seed bodies," so often to be demonstrated by palpation at the bottom of such bursæ as the olecranon and pre-patellar, are, I take it, evidences of former hæmorrhage, being composed of condensed decolourised (more or less) fibrin, either free in the cavity or moored by a longer or shorter pedicle to the interior; occasionally they are fixed and sessile. My object in calling attention to these points is to prevent bursæ being needlessly opened, for tedious suppuration almost invariably follows and the bursa has to be excised.

Treatment.—The limb should be immobilised on a splint, an ice-bag or evaporating lotion applied, and rest of the joint ensured for several weeks if the patient be anæmic or tubercular in order to prevent suppuration. The swelling slowly subsides, leaving "melon-seed bodies" behind, and these seem to be the starting point of hæmorrhage following exertion. That hæmorrhage into bursæ is more common than it is supposed is proved by finding broken-down clot in the contents of abscesses caused by the bursting of a suppurating bursa into the subcutaneous tissues—e.g., round the knee-joint.

Another interesting condition, of which I have seen several examples in the subcutaneous pre-patellar sac, is the deposit of tubercle in bursal cavities leading to infiltration of the overlying skin, suppuration, and finally an ulcer of the size and shape of the bursa. These have been accompanied by other tubercular affections, and are most obstinate to treatment.

Plymouth.

TREATMENT OF A CASE OF CHRONIC PLEURISY BY CONTINUOUS DRAINAGE.

BY B. BASKETT, M.R.C.S., L.R.C.P. LOND.

THE following case may be of interest to readers of THE LANCET, as I am unable to find any record of the disease having been so treated. The patient was under the charge of Dr. A. J. Harrison in the Bristol General Hospital, and it is by his permission that I am allowed to submit it for publication.

W. B——, a middle-aged man, a sailor by occupation, with a history of previous good health, was admitted to hospital on July 13th, 1891, suffering from very considerable pleuritic effusion on the left side. All the physical signs were well marked. There was absolute dulness on percussion all over the left side, breath sounds could not be heard, and the heart was displaced well over on to the right side. The symptoms had first been noticed about six weeks before admission, but he had not been tapped. As was to be expected, he was then in a very low state of health. Aspiration was at once performed, and forty-four ounces of serous fluid were removed; but, as he showed symptoms of faintness at this point, the operation was discontinued. There was no difference in the percussion resonance after tapping, and the only change observable in the physical signs was that ægophony, which could not be heard before, was perceptible at the level of the seventh dorsal spine, and that vocal resonance was present in the upper part of the cavity. The first tapping made no permanent difference, and the fluid began obviously to reaccumulate within a few days. Aspiration was accordingly done again, and then again, in all seven times—the amount removed at each sitting varying from two to six pints. Every effort was made to restore his strength by tonic medicines and nutritious diet; and later on in the case he was put on diuretics and counter-irritants applied to the chest wall. But he went steadily down hill, and after nine weeks of this treatment matters began to wear a very grave aspect. At this stage it was finally determined to drain the pleural cavity continuously. From the cachectic state at which he had arrived there was much reason to expect that the fluid, hitherto serous under the irritation of the constant presence of a drainage-tube and the frequent exposure to the air at the time of dressing, might become purulent, however rigidly the antiseptics were maintained; but if it did so, the inflammation thereby indicated might serve a useful purpose and close the cavity; while if it did not, the drainage, as in other serous cavities, might restore the balance between secretion and absorption, and so end the case. Careful examination of the fluid had been made and was hereafter made, but no tubercle was

ever found, nor was there any indication of its presence in the lung substance on either side.

Accordingly an incision was made in the fifth space in the anterior half of the axilla under chloroform, and a drainage-tube inserted as for empyema. To avoid the danger of syncope from the otherwise sudden relief of pressure, a small Southey's trocar was inserted, and was allowed to remain in the left side for twenty-four hours previously to the administration of the anæsthetic; in this way nearly seven pints had been removed. Secretion continued at an enormous rate, but we were rewarded from the first by an obvious tendency to expansion on the part of the lung; the breath sounds began at once to be heard. The case was a long one and uneventful throughout its whole course, save that the fluid gradually became purulent before three weeks had passed. The pus was always thin and watery, though very copious in amount. But in spite of the great drain on the system which so continuous and so abundant a discharge must necessarily have entailed, the man gained in health and strength gradually but distinctly. In about four months after the drainage-tube was inserted the discharge stopped, the wound healed, and he was completely restored to health. The lung has expanded as far as one could have reasonably ventured to hope. There is compensatory hypertrophy in the right lung to make up for the deficiences of the left. The dulness is still present all over the left side, but less marked in degree. The heart has nearly regained its position. He was so well when last seen that he was about to begin work again. At intervals in the case his temperature rose intermittently. It seemed generally to be due to the shortening of the drainage-tube, which every now and then appeared justifiable by reason of the lessening of the discharge. It was always remedied by reinserting a tube of the previous length, or, as once was done, by making a fresh incision further forwards in the axilla. There was no true hectic temperature throughout his illness.

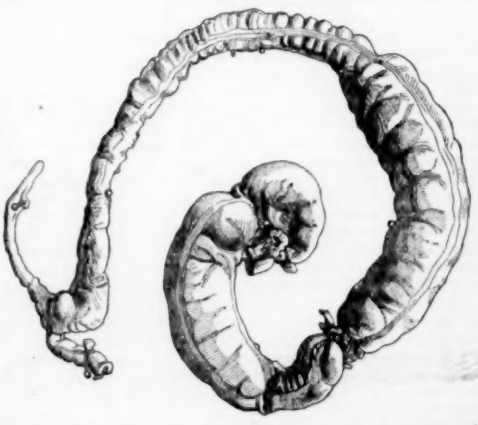
Crossfield-road, N.W.

CONGENITAL CONTRACTION OF THE ASCENDING AND TRANSVERSE COLON.

By ARTHUR H. DODD, L.R.C.P. LOND., M.R.C.S.

IN this case (J. P——, a male infant) unusual straining at stool was the earliest symptom which attracted the attention of the nurse, but the infant notwithstanding thrived noticeably during the first three weeks. At first there were one or two actions of the bowel each day, but very shortly only every other day. About the end of the third week sickness commenced, occurring from five to ten minutes after taking the breast, and at that time only, which was then thought probably due to too frequent suckling. This symptom, however, increased in severity, the amount rejected at first being only slight; but in a few days from its commencement the mother thought the whole meal, or nearly so, was returned. I should mention that the character of this sickness was peculiar, the vomited matter not simply rolling over the edges of the mouth, but "shooting out" (if I may use the expression) beyond the mother's lap into the room. There was evidently now a good deal of pain, the child lying curled up, with the thighs flexed tightly against the abdomen, the feet crossed, and crying at very short intervals night and day. At the fifth week there was a cessation of all symptoms for about seven days, but then sickness, constipation, and pain returned. Throughout there was never any distension of the abdomen, but double inguinal hernia was produced at a later stage, as a result of the perpetuual crying and straining. At the seventh week Dr. E. G. Whittle saw the case with me, and chloroform was administered, but nothing was revealed by examination. No localised enlargement, tumour, or anything unusual could be detected, and we came to the conclusion that there was some congenital deformity existing in the bowel, and thought that no operation was justifiable. Constipation increased, drugs and enemata gradually becoming useless. The motions at first were normal in appearance, but in the later stage resembled thick yellowish-brown oil paint. It was curious that during the last fourteen days of existence no sickness whatever occurred, and yet there was not any distension of the abdomen and only very slight action of the bowels—in fact, I thought that during that period the little that did follow the enemata was simply from the lower part of the colon. Wasting commenced after the third week, the child gradually sinking from exhaustion at the end of the twelfth week.

The necropsy, at which Dr. E. G. Whittle kindly assisted me, was made twenty hours after death. Rigor mortis had not set in. It revealed congenital contraction of the ascending and tranverse colon, which was throughout but little larger than an ordinary lead pencil. The



head of the cæcum was normal; the vermiform appendix was about two inches and a half in length; the descending colon, sigmoid flexure, and rectum were distended, but normal, with the exception of partial contractions of an annular character of the sigmoid flexure; the small intestine was abnormally narrow; the ileum for a few inches before its junction with the cæcum was very much contracted; the stomach was peculiar in shape, resembling an hour-glass contraction near the cardiac end. All the other organs were normal.

The photograph taken for me by Mr. J. Williamson very well illustrates the condition found. Unfortunately in removing the descending colon from the body a slight injury occurred to it, preventing proper distension of the part removed for the purpose of illustration.

West Brighton.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib iv. Procemium.

GENERAL HOSPITAL, WOLVERHAMPTON.

TWO CASES OF BILATERAL EMPYEMA.

(Under the care of Mr. KEOUGH.)

THE subject of effusions into the pleura in children is always of interest, especially in relation to the question of prognosis. Experience shows that the younger the patient the more is there likelihood of the effusion becoming purulent, and if promptly treated the chances of complete recovery are greater. Very few cases of bilateral purulent effusion have been placed on record. In the first related below pneumonia seems to have been the predisposing cause, and there was perhaps some association with a tubercular taint, for the child was delicate, and there had been trouble with both eyes. The immediate preliminary aspiration to relieve the pressure symptoms, followed later by resection, is a

plan of treatment which strongly commends itself, especially in cases in which the displacement of the heart is marked, as it minimises the chances of the supervention of dangerous symptoms which are apt to follow a too sudden evacuation of the pleural sac. In children a favourable result has in rare instances been obtained by aspiration alone; but these have been probably simple cases unassociated with visceral inflammation. Evacuation, mopping out the cavity, and drainage brought about a cure without irrigation; the latter has often proved quite inexplicably fatal, and as experience shows that recovery often follows without it, it should be abandoned as a rule. The early recognition of the loculus of pus on the right side no doubt contributed materially to the successful result, and its evacuation and drainage produced no increase in the respiratory difficulty—a fact which has been before noted. The tender age of the second case, coupled with the severity of the malady, militated much against the chances of successful treatment. In view of the fact disclosed by the necropsy that the empyema on both sides was general, it is a question whether it would not have been advisable to have aspirated a few times before resorting to resection and drainage. Though the presence of adhesions is favourable if the condition is bilateral, yet the loculated condition often contributes to an unfavourable result. Small or large collections of pus shut off from the general pleural cavity are often difficult to detect, especially when they are situated between the lobes or on their internal aspect. The cause of sudden death in some cases of pleural effusion with great cardiac displacement appears to be a "kinking" of the great veins produced by axial rotation of the heart, and giving rise to impediment to the venous flow. For the notes we are indebted to Dr. Edward Deanesly, house surgeon.

CASE 1.—L. W——, aged ten years, was admitted to hospital on Dec. 23rd, 1891. She was stated to have been taken ill three weeks previously with inflammation of the lungs, and to have gradually got weaker and thinner. On admission she looked very weak and ill. The face was flushed, the lips blue, respiration 64 per minute, gasping in character, pulse 144, and very weak. She had been a delicate child, and had lost the right eye from inflammation; the left showed an adherent corneal ulcer. There was some œdema of the legs and feet. The chest was flat, and badly developed. The left side was dull throughout, and the heart's apex beat felt in the right fourth interspace near the nipple. There was also dulness over the right base behind, as high as the seventh rib. Half an hour after admission twenty-two ounces of pus were removed from the left pleura by the aspirator. On the following morning chloroform was given, and three-quarters of an inch of the fifth rib resected in the left posterior axillary line. Thirty-eight ounces of pus and lymph were then evacuated, and the pleural cavity mopped out freely with cotton-wool sponges. A tube was inserted and an antiseptic dressing applied. On the sixth day after the operation the temperature, which had fluctuated between 98° and 101°, rose to 103·4°, and the dyspnœa, which had been relieved, increased. The right base behind was then explored, and three ounces and a half of pus removed by the aspirator. This gave some relief. Eleven days after the operation on the left side chloroform was given and the right empyema was opened and drained by free resection of the eighth rib in the scapular line. It was explored with the finger and found to be quite localised, being confined to the lower and posterior portions of the pleural cavity, reaching upwards to the seventh rib and forwards to the posterior axillary line. It contained only a few ounces of thick pus and lymph. The anæsthetic was taken well, and the opening of the right pleura produced no dyspnœa or other bad symptom, although the left pleura was still draining freely through its tube. After the second operation the patient made rapid and uninterrupted progress, and was discharged to a convalescent home on Feb. 1st, having been in the hospital forty days. A week later both wounds were soundly healed. When last seen—on April 28th, 1892, four months after the first operation—the patient was looking well and strong, and had gained considerably in weight. Both sides of the chest expanded fairly, and were everywhere resonant, though somewhat less so than those of a normal child. Air entered freely to the extreme bases of both lungs, the breath sounds being normal in character and free from adventitious sounds. Both scars were quite sound.

CASE 2.—H. W——, aged eighteen months, was admitted on March 21st, 1892, with a history of gradually increasing weakness and wasting of indefinite onset. On admission the child was fairly well nourished, but of a very marked opaque greenish-yellow colour. It had considerable dyspnœa. The left side of the chest gave the ordinary signs of general pleural effusion, the heart's apex being felt in the fifth right space in the nipple line. The right side of the chest gave no abnormal physical signs. The diagnosis of empyema was confirmed by a hypodermic syringe. The day after admission half an inch of the left eighth rib in the scapular line was resected and a large quantity of thin pus evacuated from the pleural cavity. The operation was performed without an anæsthetic. For eight days after the operation the temperature remained below 100°, and the symptoms were relieved. On the ninth day the temperature rose to 103°, and the respiration became quicker. Three days later a hypodermic syringe inserted into the right base behind revealed the presence of a second empyema. Dulness at that time reached only as high as the angle of the scapula, and symptoms were in no way urgent. It was resolved to open and drain the right empyema, but death occurred rather suddenly on the following day, before the operation could be carried out. At the necropsy the empyema, which had been opened on the left side, was found completely drained, but a second small loculus of pus was found in the lower and anterior part of the pleura, not communicating with the general cavity. The right pleural cavity was completely full of thin pus, and the whole lung collapsed and covered with patches of lymph. Heart and pericardium normal.

Remarks by Dr. DEANESLY.—Judging from the scanty reference to the subject in text-books and medical literature, bilateral empyema appears to be of somewhat rare occurrence. Mr. Godlee, in his article on Empyema in Heath's Dictionary of Surgery, refers to the condition as almost necessarily fatal unless one or the other be localised. The same surgeon, in THE LANCET of 1886, gives a second empyema on the opposite side as the cause of death in one of the cases in his list. These are the only references I have been able to find. I have, however, been informed by Mr. Godlee of a case similar to that reported above, in which a second empyema on the opposite side was opened and drained by him, with a successful result. The main condition which renders such a proceeding possible in cases of general empyema is, as might be expected, the presence of a considerable amount of adhesion of lung to chest wall on one side before the pleural cavity is opened on the opposite side. This condition was amply fulfilled in Case 1, where eleven days elapsed between the two operations—a time quite sufficient for the contraction of pleural adhesion. The fact that in this case the second empyema was a loculated one, and therefore shut off from the general pleural cavity, rendered the second operation free from danger, and no doubt contributed more than any other cause to the successful result. In Case 2 both empyemata were general and not localised, and the second one should no doubt have been aspirated as soon as it was discovered, although the collection at that time appeared to be a small one, and symptoms were not urgent. It was thought, however, that sufficient time had elapsed (twelve days) since the opening of the first empyema to render it safe to open and drain the second. Unfortunately the rapid increase of the effusion brought the case to a fatal conclusion before this resolution was put into practice. Whether the proposed treatment would have had a different result is an interesting moot point.

TIVERTON INFIRMARY.

A CASE OF HEAD INJURY.

(Under the care of Mr. MICHELMORE.)

THE clinical history of a case of head injury is given below, which appears to be one of concussion combined with cerebral irritation. The complete unconsciousness, the bleeding from the nose, and the very slow pulse and respiration, suggest the possibility of a fracture of the anterior fossa, with some limited extravasation of blood. Four days after the injury, when the patient had recovered somewhat from its immediate effects, the characteristic attitude and mental indications of cerebral

irritation became marked. The recovery was rapid considering the severity of the symptoms. The points of unusual interest were the persistence of the vesical trouble for nearly a fortnight and the excessive craving for food during convalescence. The particulars of the case are as follows:—

W. N——, aged seventeen, a groom by occupation, was brought to the Tiverton Infirmary on the evening of March 8th, 1892, having been thrown from a horse he was exercising. On admission, two hours after the accident occurred, the patient was found to be quite unconscious. There was a little frothy saliva at the right angle of the mouth, bleeding from the nose, conjunctival reflexes absent, face flushed, jaws clenched (but the tongue had not been bitten), no scalp wound, pupils normal in size but acting slowly to light, no paralysis. Pulse 50, rather bounding; respiration deep and prolonged; temperature 98°.

March 9th.—Patient still unconscious, and resists any attempt to rouse him; urine had to be drawn off with cathether; normal in reaction and appearance. Pulse 46; respiration 12; temperature 98·4°

10th.—Patient remains in much the same condition. Pulse 44, diminished strength; respiration 10; temperature 98·4°.

11th.—Partially recovered consciousness to-day, but is very drowsy, and takes time before he answers a question; retention of urine still. Pulse 44; temperature 97°.

12th.—Patient is still very drowsy, and lies principally on his right side, with the chin flexed on the sternum, and the knees drawn up towards the abdomen, and is very irritable if any attempt is made to alter his position. Pulse 42; respiration 10; temperature 97°.

13th.—He passed a quiet day, but late in the evening became delirious, the delirium being of a noisy character. The retention of urine from which he had been suffering up to this time gave way to complete incontinence. Bowels cannot be moved without enemata; pupils dilated, but act to light. Pulse 42, weak; respiration 12; temperature 97°.

14th.—The patient is somewhat better this morning, and conscious at intervals, but incontinence of urine is still present. The pupils are dilated. Pulse 44; temperature 97°.

15th.—He had a good night, and is much brighter this morning. Has regained control over his bladder. Pulse 42; temperature 97·4°.

16th.—The patient is not so well this morning. He passed his urine in the bed during the night. The pupils are still dilated. Pulse 50; temperature 97·6°.

17th.—Incontinence of urine still present, but general condition much improved. Is continually asking for food. Pulse 44; temperature 97·6°.

18th.—The patient has a most ravenous appetite, and is continually crying out for food; still has incontinence of urine. Pulse 48; temperature 97·6°.

19th.—Patient has not passed his urine in the bed so frequently to-day, and is very much brighter, and wishes to get up. Pulse 56; temperature 98°.

20th.—Improvement still marked, and there has been no incontinence of urine. Pulse 64, strong and regular; temperature 98°.

Patient convalesced rapidly, and was discharged on April 2nd quite recovered.

Medical Societies.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

MAY 16TH.

Mr. SHIRLEY MURPHY, President, in the chair.

The Working of the Infectious Diseases Notification Act.

THE evening was by previous arrangement devoted to the discussion of the above subject, and the expediency of including measles among diseases to be notified. Three short papers were contributed: the first by Dr. Woodforde, on the working of the Act in rural districts; the second by Dr. Armstrong, on the desirability of notifying measles; and the third by Dr. Campbell Munro, on the benefits derived from such notification in his districts.

Dr. WOODFORDE said that in his combination seven of the eight rural sanitary authorities had adopted the Act, one rural and the urban authorities still refusing to do so. The population of the districts under the Act was 114,000, and that of the others 44,000. In the years 1890–1 the total cases notified were 667, with 113 deaths, including 214 cases of scarlatina, 184 of diphtheria, and 88 of enteric fever, with 658 and 22 deaths respectively. The mortality from the notifiable diseases in the districts under the Act was 0·3 per 1000; in the others 0·6, or just double; but that from measles and whooping-cough was 145 deaths in the former and 41 in the latter, or 50 per cent. more than from all the other diseases put together. He thought there could be no doubt as to the immense aid to preventive measures afforded by notification, which ought to be everywhere made compulsory. The dual system met every objection, but he could not get his authorities to prosecute neglect on the part of parents. He would like to see erysipelas dropped, since the great majority of the 146 cases, none fatal, were nothing of the kind. But he made no objection to doubtful diagnosis, though many trivial sore-throats were reported as diphtheria; and he would have croup made notifiable, the designation "membranous" being dropped, for when the parents demurred to notification, deaths from diphtheria were returned as croup. The gossip of neighbours gave far more publicity than notification.

Mr. FOSBROOKE was satisfied as to the benefits of notification, though measles was often reported as scarlatina, and Dr. Dudfield agreed with Dr. Woodforde on the question of erysipelas.

Dr. ARMSTRONG said that in Newcastle they worked under a local Act, and did not pay the fees for "suspected" cases and others in which on admission to hospital the diagnoses proved to be erroneous; nor when delayed until a death had been returned. Notification on erroneous diagnosis often led to serious consequences, but was much less frequent through the activity of the sanitary authority. Indeed, prompt action as well as early information were essential to the successful working of the Act. The removal and disinfection of bedding &c. was invariably carried out, the objections raised by well-to-do families being met by the employment of first- and second-class vehicles; and, after ten years' experience, all opposition to notification had ceased.

Dr. PARKES was satisfied that during the past year the notification and removal of 100 cases of small-pox had averted an epidemic. So many cases of alleged erysipelas were reported that no action was taken. The cases notified as diphtheria were, he believed, in excess of the truth; but he feared that the reverse was the case with puerperal fever, notwithstanding its importance from a sanitary point of view. Dr. Sykes regretted the paucity of terms in the Act which gave opportunities for concealment. Puerperal fever was septicæmia, yet if called by that name or blood poisoning it was not notified. Varicella was suspiciously prevalent during epidemics of small-pox, and the police regulations enjoined in consequence the same action as regards disinfection &c.

Dr. SERGEANT would not drop erysipelas, if only from its being a frequent cause of puerperal fever, as he had himself seen. The President considered it of the highest importance for the opportunities it gave for sanitary improvements, while the cost of certificates was insignificant. He reminded the meeting that Mr. Ritchie had stated his intention to bring in a Bill to make the Act compulsory throughout the country, and proposed that the resolution in favour of such extension, which was put and carried unanimously, should be forwarded to the president of the Local Government Board.

The discussion on the Notification of Measles was then opened by Dr. ARMSTRONG, who described the mortality from that disease as awful. He hoped that it would soon be adopted in his town, the resolution having on the last occasion of his bringing it forward been lost by only a single vote. Not only was the mortality four times as great as that of scarlatina, but it led to much subsequent disease. The question was as to how it could be prevented; and it seemed to him that all the arguments against its notification were based on the fallacious notion that it differed essentially in some way or another from all other infectious diseases. But its very prevalence should urge us to more strennous action, and if it were more infectious before it could be recognised it was not less so afterwards. Every objection would, he maintained, be found to break down on close examination. As

regarded diseases that were already notifiable, the mortality in the ten years 1880–90 had been reduced to one-fourth in the towns under the Acts, while in those where it was not in force it had greatly increased. Notification of measles would enable preventive measures to be taken by the sanitary authorities and school teachers conjointly to check its spread; it would do away with the concealment of scarlatina under the name of measles, and would inculcate on the public a true estimate of its gravity. He was always ready to certify for the Government grant when a school was closed so soon as an outbreak of an infectious disease appeared, but refused to do so when closure was delayed so long that the evil was already done.

Dr. MUNRO'S paper, a short abstract of which he read at the Epidemiological Society last year, was intended to demonstrate the effect of early information and school closure in checking the spread and reducing the mortality of measles. In Jarrow there had been between 1883 and 1891 inclusive five biennial outbreaks, and the notification having been respectively none, voluntary late, voluntary early, compulsory late, and compulsory early, the mortality had steadily declined from 4·0 to 0·7 per 1000 to nearly one sixth. On one occasion twenty-eight out of the first twenty-nine cases occurring simultaneously in one district were those of children in the infant department of a single school. Under such circumstances prompt closure led to the extinction of the epidemic in a fortnight or three weeks.

Mr. WIGHTMAN demanded hospital provision for severe cases. Among the poor, especially the Irish, in his district it was the cause of much blindness.

Mr. FOSBROOKE said that at Kidderminster the simple keeping of the children in-doors by order of the inspectors had reduced the death-rate to one-fourth; but Dr. SERGEANT had found that at Bolton the additional labour paralysed all other sanitary work until it was discontinued after two years' trial.

Dr. SYKES remarked that isolation covered exclusion from school as well as seclusion in hospital, but Dr. PARKES believed that measles spread at least as fast while the schools were closed.

Dr. DUDFIELD said that the 3000 deaths in London last year represented probably 100,000 cases, all other notifiable diseases numbering 30,000. To provide for such was utterly impracticable, though bad cases ought to be admitted into hospital.

Dr. ARMSTRONG again insisted that the magnitude of the scourge should act as an incentive to exertion, that much good might be done without hospital provision, except for really severe types of the disease, that the mortality was in the strictest sense preventable, and that, in view of the recurring wave periods, the period of trial of the Acts should not be less than ten years.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Section of Pathology was held on May 13th, Mr. Nixon in the chair.

Chronic Tubercular Spinal Meningitis.—Dr. H. T. BEWLEY showed a spinal cord from a case of chronic internal tubercular pachymeningitis. The disease lasted four years, causing complete loss of motion and partial loss of sensation in the legs. At first there had been marked incoördination with increased reflexes, but afterwards the reflexes culminated in permanent rigidity. Four years after the paralysis showed itself the spine became curved, the tenth dorsal spine becoming prominent. This singular curvature became rather more marked. Finally he died of tubercular meningitis. At the post-mortem examination it was found that the external surface of the dura mater was healthy; the internal surface was thickened. This thickening was most marked in the lower dorsal region, where there was about one-sixth of an inch of tough, whitish tissue growing from the dura and attached to the arachnoid and pia mater. This tissue thinned off gradually above and below. On microscopical examination this structure was seen to consist of granulation tissue containing giant cells and tubercle bacilli, and in many places had become caseous. This tissue compressed the cord in the lower dorsal region. The cord showed ascending and descending degenerations above and below this point. The ninth, tenth, and eleventh dorsal vertebræ were carious, and there was cerebral tubercular meningitis. The disease had started in the internal surface of the dura mater, and the bone disease was secondary. That this was the course of the case is shown by the following facts: (1) The external surface of the dura was healthy, the internal diseased; (2) the spinal disease did not show itself till three years after the paraplegia had become complete.

Horny Epithelial Tumour.—Dr. ARTHUR BENSON showed a tumour which he had removed from the outer side of the left brow of a woman, aged about thirty, in St. Mark's Ophthalmic Hospital. It was not adherent either to the skin or the bone, and was removed under the impression that it was an ordinary dermoid tumour. It had been present all her life, and, except for the disfigurement, was no trouble to her, though she thought it was growing a little larger. The tumour was oval, and about three-quarters of an inch long and half an inch wide.—Dr. GRAVES showed microscopic sections of the horny epithelial tumour. The tumour was completely invested by a strong fibrous capsule which sent in many trabeculæ, dividing off the masses of epithelial cells of which the tumour was composed. The great bulk of these epithelial cells were horny. In one place these horny cells were seen to be directly connected with a mass of Malpighian cells. This tumour was precisely similar, in macroscopic and microscopic appearance, to a tumour removed from the neck by Mr. Wheeler, and exhibited last year at the Pathological Section of the Royal Academy of Medicine (vol. ix., page 428).

Artificial Dental Caries.—Dr. A. W. W. BAKER read a paper upon artificial dental caries, and showed microscopic specimens.

Perforating Ulcer of Stomach.—Dr. JOSEPH REDMOND exhibited a case of perforating ulcer of the stomach in a male aged sixty. On opening the stomach it was found to contain two solutions of continuity, the larger of which, situated on the posterior wall, measured four inches by two inches and a half. The floor of the ulcer was formed by the pancreas, to which it was intimately adherent. The smaller ulcer was situated about one inch to the lower and mesial side of the œsophageal opening, and separated from the larger by a distance of about one inch and a quarter. Its shape was nearly circular, and was about one inch in diameter. Its floor was irregular, without any trace of hæmorrhage, and at one corner was the perforation which had occasioned the fatal termination.

Pedunculated Sarcoma of Cerebellum.—Dr. M'WEENEY read a paper on a case of pedunculated sarcoma of the cerebellum which had occurred at the Mater Misericordiæ Hospital. The patient, J. S——, had been admitted to hospital on Jan. 11th under the care of Mr. Hayes, suffering from persistent vomiting and headache, and from debility and insomnia, the result of these symptoms. Twelve months previously he had been unconscious for two hours after a severe fall, but apparently recovered his usual health till about four months previous to admission, when the vomiting began to be troublesome. On examination the right side of the tongue was found insensible to impressions of taste, and there was almost complete deafness of the right ear, which he had noticed only three weeks before admission. The right pupil was larger than the left, and reacted to light. There was no optic neuritis and no facial paralysis. Cough was troublesome, and there was a certain amount of bronchitis. Urine small in quantity, of sp. gr. 1032–36. Urates present in abundance; no other abnormality. Bowels confined; temperature occasionally rose to 100°–101° F.; skin always dry. The patient became suddenly comatose, and died on Jan. 29th. Post-mortem: A disc-shaped pedunculated tumour was found on the right side of the under-surface of the cerebellum. Its inner aspect was closely in contact with the crus, pons, and medulla, which were flattened and distorted by the pressure. The tumour lay in front of the amygdala of the cerebellum. The exact shape of the tumour was that of a somewhat crumpled and convoluted roughly circular disc, of which one surface looked upwards and inwards, the other downwards and outwards. The diameter of the disc was one inch and three-quarters; its thickness averaged one-third of an inch. Its peduncle was very riband-shaped, and entered the cerebellum about the region of the flocculus, slightly posterior to the roots of the facial and auditory nerves. The bulging caused by the passage sideways of the superficial fibres of the pons was quite obliterated by the tumour, and the seventh and eight pairs of nerves were adherent

to the upper surface of the disc. The pneumogastric and glosso-pharyngeal nerves were adherent to the posterior edge of the disc, flattened and disintegrated into small bundles of fibres. The peduncle of the tumour seemed to run into the white centre of the cerebellum, and near the upper surface of that organ in the quadrate lobule was a remarkable vascular condition consisting of a plexus of large thin-walled veins (one-fifth of an inch in diameter), lying both in the medullary substance and in they gray matter of the sulci. Microscopic examination showed the tumour to be composed chiefly of sarcoma tissue, the cells being of various shapes, the nuclei close packed, oval, vesicular or epithelioid. There was no definite grouping of the cells, and round the large venous blood-spaces which abounded in the sections the cells were affected for some distance with hyaline degeneration. The cortical substance of the cerebellum, with its two layers and intervening Purkinje's ganglion cells, were found by serial sections to extend on the outside of the tumour for some distance, the nervous layer gradually becoming thinner and thinner. The cerebellar cortex in the neighbourhood of the peduncle of the tumour showed no microscopic change save thinning of the layer of granules and a certain amount of diminution in the number of medullated fibres. The area occupied by the venous plexus was, save for its presence, healthy, the nerve fibres coming right up to the margins of the large veins. Dr. M'Weeney demonstrated a series of sections from different parts of the growth, stained with Delafield's hæmatoxylin and eosin, picrolithic carmine, Weigert's and Pal's methods, and with Sahli's borax-methylene-blue.

Ovarian Cyst.—Mr. GRAVES showed an enlarged prostate, dilated ureters, and diseased kidneys, with microscopic sections, for the President of the Royal College of Surgeons in Ireland. Mr. Graves also showed a large multilocular ovarian cyst for Dr. Wheeler.

Dry Gangrene of Finger; Lacerated Wound of Heart.—Mr. F. A. NIXON showed these specimens. The dry gangrene of the finger was caused by an incised wound in a patient, a young lady, aged fifteen years. The lacerated wound of the heart was caused by a runaway horse. The patient was brought into hospital. There were four ribs broken on the left side without laceration of lung or pleura. The pericardium was filled with blood, which came from a lacerated non-penetrating wound of the left ventricle.

Reviews and Notices of Books.

International Clinics: a Quarterly of Clinical Lectures. Edited by JOHN M. KEATING, Philadelphia; J. P. CROZIER GRIFFITH, M.D., Philadelphia; J. MITCHELL BRUCE, M.D., F.R.C.P., London; DAVID W. FINLAY, M.D., F.R.C.P., Aberdeen. Volumes III. and IV. Philadelphia: Lippincott. Edinburgh and London: Young J. Pentland. 1892.

WITH the appearance of the fourth volume of this novel and singularly interesting serial its first year of issue is completed; and we cannot but congratulate both editors and publishers upon the general high standard of excellence that has been maintained throughout, and the manner in which the volumes have been produced. All branches of surgery and medicine are well represented, whilst the variety of style and the general practical tendency of the lectures afford an excellent review of the teaching of the present day on each side of the Atlantic. As each volume contains more than forty lectures, nearly all by different hands, the wealth of material must be obvious, and to the practitioner who desires to keep abreast of current doctrine such a collection should be invaluable.

It would be obviously impossible to deal in detail with each of the topics, treated with more or less thoroughness, in these volumes; but perhaps some idea of their contents may be gleaned from a brief notice of a few of the more important. Dr. Hirschfelder of San Francisco describes minutely the procedure for the clinical estimation of the gastric secretion, in a lecture upon a case of Acid Dyspepsia. Professor Gairdner of Glasgow discusses the question of Operative Interference in Acute Intestinal Obstruction—of value for the warning gained by his own experience against regarding stercoraceous vomiting as an absolute indication for resort to surgical measures. The subject of Hodgkin's Disease is reviewed by Dr. McDonnell of Montreal. A practically useful and well-compiled lecture is that on the Examination of the Sputum for Tubercle Bacilli and its bearing on Diagnosis and Treatment, by Dr. Percy Kidd, of the London Hospital. It affords strong testimony to the value of this "sputum test" in diagnosis; but Dr. Kidd points out that it is fallacious as a guide to prognosis. He wisely refers to the extravagant hopes arising out of the discovery of the bacillus as to the effect of bactericidal remedies in phthisis. Drs. Goodhart and Carpenter contribute a lengthy article upon Tubercular Peritonitis, from their experience at the Evelina Hospital. They distinguish three varieties: (1) Matting of bowels associated with tubercular ulceration and caseous disease of mesenteric glands; (2) miliary tuberculosis; and (3) tubercular tumour; and their paper is full of points to be remembered in diagnosis. It may be said that of the thirty-one cases dealt with in the article, fifteen are known to have died, six are "doubtful," and ten "are at present alive and, so far as is known, in fair health." Among surgical lectures in the third volume may be cited one by Dr. Carmalt of Yale University, on a Successful case of Excision of the Cæcum for Malignant Disease; one on Congenital Tumours of the Head and Spine by Dr. W. W. Keen—a Meningocele operated on successfully, two cases of Spina Bifida, and one of Coccygeal Tumour. Mr. R. W. Parker, of the East London Hospital for Children, writes on Chronic Glandular Enlargement in Children and its Treatment, a thoroughly practical paper. Tuberculosis of the Bladder, by Dr. Bryson of St. Louis, and Tumours of the Bladder, by Dr. Watson of Boston, are of much interest, collating the experience of the writers. The views of Dr. Champneys upon Removal of the Uterine Appendages are well known; but everyone will be glad to have his two lectures on this subject which form a dispassionate and careful study of the reasons for and against interference, and a protest against the abuse of an operation which in selected cases may be rightful and necessary. Dr. da Costa of Philadelphia supplies a lecture on Malarial Paralysis, and Dr. Weir Mitchell one on Permanent Headaches, and there is also an interesting study of Adult Chorea by Dr. Dercum. A remarkable case of recurrent exfoliative dermatitis is described by Dr. Blanc of New Orleans.

The fourth volume opens with a memoir of the late Dr. Charles Theodore Parker, whose portrait forms the frontispiece. Dr. Thomas Oliver has an interesting lecture upon the Various Forms of Purpura, containing a description of a fatal case of idiopathic purpura hæmorrhagica, one of purpura simplex, and two of purpura rheumatica. It is noteworthy that one of the latter patients eventually died of ulcerative endocarditis. Dr. Gilman Thompson of New York speaks favourably of the Brand method of treatment of typhoid fever. Dr. Bristowe discusses the subject of Hydronephrosis; and other lectures on renal disease are those on the Last Stage of Chronic Bright's Disease, by Dr. Baumgarten of St. Louis, and on Chronic Tubal Nephritis, by Dr. Danforth of Chicago. Sir Dyce Duckworth contributes a lecture on the Treatment of Acute Pneumonia. Dr. Dennis writes on Gangrene, which he divides into (1) traumatic, (2) idiopathic, (3) infectious, and his lecture closes with rules as to the performance of amputation for gangrene. The subject of Osteotomy for Curved Tibia is dealt with by Dr. F. Willard of Philadelphia; and Mr. John Morgan, of Charing-cross Hospital, speaks on Defective Gait. Mr. G. Peters of Toronto details a case of Tumour of the

Spinal Meninges localised in the lower dorsal region "Laminectomy" was performed and the tumour removed, but the patient died on the fourth day. Dr. Nancrede gives the details of a case of Traumatic Epilepsy for which trephining was performed, and sclerosed bone, as well as the centres for the lower face and left side of the tongue, removed. The operation was followed by some transitory aphasia. Dr. E. G. Davis describes the Destructive Operations upon the Fœtus, and the conditions calling for them. Amongst the lectures upon nervous diseases there is an excellent survey of Insanity by Dr. E. D. Fisher of New York; a case of Tumour of the Spinal Cord, described by Dr. J. S. Graham; Hysterical Paraplegia in Children, by Dr. N. Hun of Albany; whilst the Clinical Aspects of Chorea are reviewed by Dr. Carter Gray of New York. Dr. Sidney Coupland, of the Middlesex Hospital, revives Trousseau's term "cerebral rheumatism" in discussing the subject of Hyperpyrexia in Rheumatic Fever; Dr. Græme Hammond of New York writes on Migraine; Dr. Eskridge on Ataxia; Dr. Brown of Chicago on Reflexes of the Brain and Spinal Cord; and Dr. Morris Lewis of Philadelphia on Aphasia. There is an interesting survey of the present aspect of the Leprosy question by Dr. Van Harlingen of Philadelphia, in which it is clearly acknowledged to be a bacillary disease and communicable. "It may be," he says, "transmitted directly from one individual to another, or it may run through a stage of intermediate life, a spore condition, which may flourish in the soil, water, or food, but which can originate only in a leper."

The Practice of Hypnotic Suggestion, being an Elementary Handbook for the use of the Medical Profession. By GEO. C. KINGSBURY, M.A., M.D. Univ. Dub. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1891.

IN this volume Dr. Kingsbury proposes to give English readers a sketch of the practical applications of hypnotism to disease. As stated in the preface, "it has no pretension to do more than acquaint its readers with the rudiments of practical therapeutic hypnotism, and to warn them against its dangers and difficulties. The book is a general sketch of the entire subject, with special emphasis, however, on therapeutics and practice. It adds but little to the materials afforded by the works of Bernheim, Liégeois, Moll, Heidenhain, Wetterstrand, Krafft-Ebing, Luys, and the host of other recent writers on the subject. But the work is well written and clearly arranged, and will give a fair idea of the subject to those who are only beginning its study. The author writes as an adherent of the Nancy school; he is confident of the practical therapeutic usefulness of hypnotism, and believes that its dangers are comparatively trivial, and not greater than those that attend numerous accepted methods of treatment. It might be suggested that wider knowledge will convince him that in his book he has under-rated the difficulties of the subject and ventured upon dogmatism, when tentative inquiry would be the genuine scientific attitude. Dr. Kingsbury objects to the use of the word "hypnotism." We want, however, some word to indicate the condition on which this heightened receptivity of suggestion depends, and we can hardly hope for a less objectionable word than hypnotism, until we know the physiological basis on which the phenomena depend. We need not follow him through his account of the work of Braid, Liébeault, Bernheim, Forel, Charcot, and others, or dwell upon his description of the phenomena, stages, &c., of hypnotism. He is here upon very familiar ground, and his exposition, if somewhat unduly confident and roseate, is in the main clear and fair.

Dr. Kingsbury gives the following list of affections in which hypnotic treatment is said to have been followed by relief or cure—viz., sciatica, tic, pleurisy, insomnia, headache, indigestion, spasmodic cough, eczema, writer's cramp, constipation, diarrhœa, anæmia, hysteria, hystero-epilepsy, gastralgia, stammering, enuresis, neurasthenia. This strikes us as a rather curious catalogue. That the pain of pleurisy or the itching of eczema may be relieved by hypnotism is very probable, but with our knowledge of the pathology of these conditions it would be utterly futile to rely upon this method alone. The same remark applies *mutatis mutandis* to the case of anæmia. "In one case of apparently established habit of lying and thieving I have seen truthfulness and honesty as apparently rooted after a few hypnotic sittings"! We should be curious to know how the author would prove such an assertion. As regards the alleged dangers of hypnotism, Dr. Kingsbury "has no hesitation in saying that though he has induced hypnosis hundreds of times he has never yet seen any injurious consequences, moral, intellectual, or physical, follow." The last thirty-two pages of the work are devoted to the narration of fifty "illustrative cases," in which the value of hypnotism was, in the author's opinion, demonstrated. We have not space to discuss these cases adequately, but we have weighed them carefully and we must confess they have not made a favourable impression upon us. The evidence is rather loosely put together, conclusions are confidently drawn, and the *post hoc ergo propter hoc* fallacy is somewhat too apparent. The study of hypnotism seems likely to do some good by heightening our estimate of the psychical element in our nature, and giving us clearer views regarding the very real and potent influence of mind on body. That it will ever go beyond this point seems still doubtful, and the attempt at Nancy and elsewhere to erect it into an all-sufficing system of therapeutics seems to us to be a cardinal error which can bring nothing but discredit upon scientific medicine.

Text-book of Comparative Anatomy. By Dr. ARNOLD LANG. Translated into English by HENRY M. BERNARD, M.A. Cantab., and MATILDA BERNARD. Part I. London: Macmillan and Co. 1891.

THE translators in their preface state that this translation may be regarded as the first instalment of the second edition of Professor Lang's "Lehrbuch der Vergleichende Anatomie," as they have had at their disposal his notes, collected for the purpose of emendation and expansion. In a masterly preface which follows Professor Ernst Haeckel tells us that Professor Lang's book was founded on an older text-book by Oscar Schmidt, and was practically its ninth edition, although rewritten on a larger scale. Oscar Schmidt's work resulted from the transcription of Johannes Müller's lectures, and went through eight editions. The present work, therefore, has been in process of construction for over forty years—from the time, indeed, when Müller commenced to compile his famous lectures. The first volume, which alone has as yet been published, covers the ground from the protozoa to the arthropoda, and the plan adopted is to give a systematic review of each race or phylum, in which the various classes and subclasses are enumerated, with an epitome of the characteristic features of each and a list of the chief families of the class. After this some general remarks on each race are made, followed by an account of the body form, and then the various systems are treated in a definite order under the following heads:—Integument and its Appendages; Musculature; Digestive System; Nervous System; Sensory Organs; Vascular System; Excretory Organs; Respiratory Apparatus; Sexual Organs. The chapter is usually brought to a close by a description of the development and phylogeny of the race, followed by an enumeration of the bibliology bearing upon

it. Chapter I. commences with an introduction on the cell, and after that the protozoa are systematically described; the last part of the chapter being devoted to the early stages of reproduction and the building up of tissues from one cell, which leads up to a description of the various simple tissues in the animal body. Chapter II. commences with an introduction to the study of the metazoa, and discusses their origin; then the cœlenterata are described, and the chapter ends with an explanation of the law of biogenesis, and of egg segmentation and gastrulation, which prepares the reader to understand the ontogeny of the cnidaria. Chapter III. is devoted to a description of the platodes, and seems to us the best chapter of a very good book. Two or three pages at the end of it are devoted to the influence of parasitism on the structure and development of animals, followed by a definition of strobilation and segmentation. To students of human and veterinary medicine this chapter should be especially valuable. Chapter IV. contains an account of the vermes, or true worms, while V. and VI. are devoted to the arthropoda, the crustacea being dealt with in the first and the rest of the arthropods in the second of these. The illustrations are copious and judiciously selected, they are perfectly clear and in many cases highly artistic; all the letters indicating the different parts are placed at the margin, and do not obscure the drawings. Where diagrams are necessary they are inserted, but as a rule nature is closely adhered to. The type and paper are excellent, and the English clear and readable. The work is brought well up to the present date. Altogether we may congratulate the translators on their successful revision of Professor Lang's well-known work, and may recommend it to all who wish to acquire a scientific knowledge of modern comparative anatomy. We look forward with pleasure to the appearance of the second part.

Analytical Records.

FLUID COCA AND CUCA CHOCOLATE.

(HENSON & CO., BEULAH HILL, S.E.)

FLUID COCA (Henson) is a preparation containing all the essential principles of the coca leaf, and in the course of its production the indigestible and waxy constituents have evidently been carefully eliminated. It yields, on suitable treatment, an abundance of the alkaloid cocaine, contains no alcohol, and is miscible with water or with wines. The liquid is slightly acid to test-paper, is of a clear greenish-brown colour, and evolves, when warmed, a fragrant odour characteristic of the coca leaf. It is clearly a reliable preparation, and may be conveniently used for the extemporaneous preparation of coca wine, or for adding to tea, coffee, aerated water or milk. Cuca chocolate contains a definite quantity of the stimulating and restorative leaf principles in a palatable form convenient for the use of travellers and others.

DR. BANCROFT'S CONCENTRATED BEEF OR AUSTRALIAN PEMMICAN.

(JAMES GRAY, 116, QUEEN VICTORIA-STREET.)

Experience has shown that pemmican, if not tasty, is certainly nutritious. It consists, as is probably known, of a mixture of the best beef and fat dried together. All the nourishing and sustaining principles of fresh beef are, according to our examination, to be found in the above preparation, which in many respects resembles pemmican. Microscopical as well as chemical examination showed the presence of a large proportion of fat together with muscle fibre. Analysis gave the following results:—Nitrogen, 10·17 per cent.; fat, 40·00 per cent.; moisture, 2·12 per cent.; and mineral matter, containing of course soluble phosphate and but little common salt, 4·80 per cent. No objectionable preservatives were detected. From the small proportion of water present in the preparation it is, as might be expected, somewhat hard, and it requires to be stewed for some time and duly seasoned before its flavour can be fully appreciated. It is doubtless a valuable form of portable food. We must take exception to the inclusion of the name of a medical man in the designation of a commercial product.

MALTO-RICINE.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL BUILDINGS, E.C.)

As its name would imply, this is a compound of active malt extract with castor oil. Under the microscope the preparation is seen to be perfectly uniform and homogeneous until a drop of water is added, when instantly myriads of minute globules of oil separate. While the preparation is quite tasteless as regards castor oil, it affords an excellent and effective medium for the administration of one of the best and safest aperients. The action of diastase upon oils in emulsifying them, and upon many other substances, is still vaguely understood, and the subject might well be taken up as an excellent and interesting one for investigation.

MÉDOC, PAUL DURAND (BORDEAUX).

(HENRY DAUBER, JUN., 19, SWERTING-STREET, CASTLE-STREET, LIVERPOOL.)

A delicate, agreeable, and no doubt a genuine Bordeaux wine. It contains no antiseptics such as are sometimes used for the preservation of French wines, and yields on analysis the following normal results:—Absolute alcohol by weight, 6·65 per cent.; by volume, 8·35 per cent.; residue dried at 100° C., 2·12 per cent.; and mineral water, 0·23 per cent. It is a good, light dinner wine, and inexpensive.

ROSBACH MINERAL WATER.

(THE ROSBACH WATER COMPANY, 4, SUSSEX-PLACE, LEADENHALL-STREET, E.C.)

Natural sparkling waters are without doubt superior to those artificially produced. The carbonic acid gas contained in them is generally perfectly pure, and has probably been in contact with the water for a very long time and at a very great pressure; the water is consequently more permanently impregnated with the gas. Rosbach water is bottled at springs near Homburg; it is agreeably soft and clean to the palate, and belongs to the class of mineral waters known as mildly alkaline. On evaporation it yields 127·6 grains per gallon of mineral residue, consisting chiefly of carbonates of magnesium, calcium, and sodium, together with the chloride of the last-named metal. The solids are without change on ignition, so that the water may be taken to be free from organic matter or matter that readily undergoes charring.

MEDICINAL TOKAY.

(W. BURROWS, 243, BROMPTON-ROAD, S.W.

A choice wine of characteristic sweet, sherry-like taste, and exhibiting chemically the composition of genuine Tokay. The residue dried at 100° C. amounted to 19·85 per cent., consisting mainly of saccharine matter, and the mineral constituents to 0·45 per cent. The wine yielded on distillation 10·00 per cent. of absolute alcohol by weight, or 12·40 per cent. by volume. There is indication of the wine being of an honest kind, and it may accordingly be used, as recommended, for medicinal purposes.

MAIZE BREAD.

(THE NATIONAL FOOD REFORM SOCIETY, NEW-CROSS, S.E.)

Well cooked, beautifully white, of uniform texture, keeping moist for a longer time than, though not so palatable as, good wheaten bread, are our observations concerning this specimen. The loaf is said to contain 25 per cent. of malted maize, which has the property, it is claimed, of keeping the bread moist for a considerable period. It must not be forgotten, however, that the addition of maize flour must naturally reduce the proportion of certain valuable and essential constituents belonging to wheaten bread. Thus maize flour contains much more starch than wheat flour, far less nitrogenous and mineral matter, and no fat.

THE LANCET.

LONDON: SATURDAY, JUNE 11, 1892.

WE present to our readers to-day, by way of Supplement to THE LANCET issued in support of the Hospital Sunday Collection which is appointed to be made on Sunday, the 19th inst., a statement showing, as well as we are able to exhibit it, what has been in recent years, and still is, the growth of hospital work in the metropolis. The results, though striking enough for their magnitude and significance, will not surprise those of our readers who have been accustomed to keep their information abreast of the facts as to the movements of the population amid which we live. But they can hardly fail to arrest the attention of all, and to the great public, for whose information, and with the intention of securing whose active support our supplement is specially written to-day, our facts and figures will come home not less as matters of new than of strange and wonder-stirring interest. Among the subjects upon which we have this year sought information from our various correspondents, the hospital work of twenty years ago occupies a conspicuous place. The inquiry was one to which it must of necessity be impossible to obtain a full answer, as we indeed foresaw, and we desire to record our thanks to the various secretaries and other hospital authorities who have, at no small pains to themselves, supplied such information as was available for the purpose. Indeed, our acknowledgments are due not only to those who have dealt with this branch of inquiry, but also to all who have assisted us, and to whose support we have on this, as on former occasions, been indebted for the substance of our appeal. But notwithstanding the pains taken to further our purpose on the part of our various friends, it has proved quite impossible to compile anything that could afford a basis of statistical comparison between hospital work in the metropolis twenty years ago and now. There are gaps in our statistical tables which we regret, but which we feel sure are due to unavoidable causes and not to any unwillingness on the part of hospital authorities to coöperate in our work and assist our efforts. To judge from the general impression conveyed by a perusal and comparison of the reports sent to us, it must be admitted that private beneficence does not appear therefrom to have grown in proportion to the growth of population; and although, as we state elsewhere, there does not seem to be any general falling off in the private subscription lists, which, on the contrary, show upon the whole an advance, yet the advance is certainly less than the well-wishers of hospitals would desire, and less probably than might have been reasonably expected. On the other hand, it must be borne in mind that since the date specified there has been a very great increase in the number of new institutions. The Post-office Directory for 1872 contained the names of seventy-five hospitals and forty-eight dispensaries established in London. The same authority in the present year gives a corresponding list of one hundred and two hospitals and one hundred and nineteen dispensaries. Here, then, is an increase in point of number of thirty hospitals (nearly 50 per cent.) and seventy-one dispensaries (nearly 150 per cent.), and, as most of these institutions come upon the purses of the charitable, it is easy to understand that their competition keeps down the growth of subscription lists to the older institutions, and that any estimate of the amount of public beneficence which did not take account of this fact, but rested wholly on a comparison of the incomes of particular institutions then and now, would be apt to be exceedingly misleading. We are not, therefore, disposed to accede to the view that public charity has decayed, or is decaying. It is natural enough that those who are engaged in the anxious and often disappointing work of gathering in the offerings of the people should be apt to take this view; but if we can induce them by the presentation of these facts to take a more hopeful view, we shall ease their minds, and certainly not increase their difficulties.

Turning from the past to the immediate future it is not possible to avoid a certain anxiety for the success of the forthcoming collection. In the first place it must be borne in mind that the success of former collections—the record of which must be beaten before success can be registered in this present year—has been obtained at the cost of great efforts on the part of all friends of the Fund, and the present task cannot be discharged without at least an equal effort. Then, again, we must naturally remember at such a time the stalwart support which has for many years past been given to the movement by some whose strong and effective aid is no longer available. The names of Cardinal MANNING and of Dr. ALLON will at once suggest themselves as representing the ravages of death. Still, new years bring new men, and we trust that the successors of those whose services have been lost either by death or other causes will prove to be not less helpful than were those others whose places they have taken. And in this connexion we will venture to repeat an appeal which we made last year to our professional brethren in the metropolis to make this cause their own. We then reminded them that they, above all men, can speak with authority concerning the work and the claims of the hospitals and medical charities and that their advocacy will carry a very special weight. It is gratifying to us to know that to that appeal a most generous response was made, and that some of the very largest contributions which reached the treasurer's hands in 1891 were the direct results of the advocacy of members of our profession. It is, therefore, with a well-assured confidence that we renew the appeal to-day, and ask, not only for their personal contributions, which will be forthcoming in any case, but also for their good word and influence with patients and friends, a matter of scarcely, if at all, inferior practical importance.

IT is satisfactory to find that the Association of Members of the Royal College of Surgeons of England is not discouraged by the unfortunate termination of the action STEELE *v.* SAVORY. We say unfortunate not so much on account of the summary decision of Mr. Justice ROMER in favour of the defendants—for law is proverbially uncertain, and the best of causes may suffer temporary discomfiture,—but chiefly because the heavy costs incurred in carrying on

the suit are very disproportionate to the value of the action, and must tend to cripple the resources of the Association in the prosecution of more hopeful plans for the reform of the constitution of the College. Until the costs of the action are defrayed the Association cannot direct its undivided attention to the elevation of the constitutional position of the Members of the College, and we would again urge upon the Members of the College generally that duty and interest alike require some contribution, however small, towards the expenses of the action. A few of the most ardent reformers have contributed liberally to the fund, and the Association has found a most generous friend in the treasurer, Dr. DANFORD THOMAS; but it is not right that a burden of this nature should be borne only by a few, when its distribution amongst a large number of Members would not be felt by any. Three or four thousand subscriptions of half a guinea each would wipe off the obligation, and leave the Association with money in its coffers and free to prosecute the campaign in earnest. "Although," says Dr. DANFORD THOMAS, "in the law courts the Association of Members has been defeated, the justice and reasonableness of its claims remain the same, and efforts will now be directed to the furtherance of the Bill in Parliament with which the Members are familiar, and all other legitimate means used until success is ultimately secured." This is the proper course for the Association to pursue, and success is by no means so remote or so unlikely as some in the hour of defeat may have considered it to be. The Members of the Royal College of Surgeons of England in reality constitute the Corporation, and it is out of the funds which they have contributed and are contributing that the College is maintained. To the Members of the College, who number at the most moderate estimate 12,000, the College is indebted for the weight and importance which are attached to the deliberations and decisions of the Council of the College. Yet these 12,000 medical men—a highly educated and intelligent constituency—are as absolutely destitute of any voice in the management of the College and the election of the Council as medical men who have no connexion whatever with the institution. They are treated in the same way medico-politically as the occupants of gaols and the recipients of parish relief are treated in the body politic. It is not to be supposed that in the nineteenth century this condition of things will be permitted to continue. There will come a time when, under other conditions, the whole fabric of exclusion will fall like a pack of cards. It is not probable that the existing condition of affairs could survive very long after a full and fair discussion in Parliament, and it is undoubtedly the right policy for the Association of Members to pursue to promote a Bill in the next Parliament for the amendment of the constitution of the College. We cannot agree with Mr. LAWSON TAIT that the recent action of the Committee of the Association of Members has in any way rendered it impossible for him or anyone else to fight the battle of the Members. If the Committee had appealed against Mr. Justice ROMER'S decision, the probability is that the costs would have been increased and the decision confirmed. The abandonment of an appeal was the result of high legal advice, and coincided with the views of almost everyone who has thought and written on medical politics. The only means by which the grievances of the Members can be redressed are either the action of Parliament or the convictions of a majority of the present electoral body of the Fellows that the claims of the Members are just and reasonable. If Mr. TAIT wishes to help the Members he should secure a seat on the Council of the College; and it is by no means certain that he could not obtain even now votes enough to carry him into the Council whilst adopting the liberal platform which he has always professed. In 1889 justice to the Members was made a leading feature by Mr. TAIT and others, and he polled almost as many votes as he did last year. The too radical character of the Bill then promoted by the Members' Association aroused the fears of the Fellows, who evidently strongly objected to being swamped entirely by the Members of the College. Under the most discouraging circumstances from 150 to 180 Fellows voted in favour of the representation of the Members on the Council of the College; and it is very unlikely that the opinions of the Fellows will become less liberal as time rolls on; for whilst the position of the Fellows in relation to the Council and the College is sure to improve, the position of the Members must advance *pari passu*. We ground this opinion on the fact that as every individual belonging to the Corporation must be a Member, privileges cannot be granted to one section of the Members—the Fellows—without being claimed by the Members at large. If the Council consults the Fellows on any question it cannot legally refuse to consult the Members. If it did, there would be a distinct grievance, and the more grievances there are, the stronger will the case of the Members become. Absolute exclusion of the men who are the backbone of the College from all voice in the management and expenditure of the College is an anachronism so pronounced that only patience, perseverance, and determination on the part of the Association of Members are required to ensure the success of their reasonable and righteous cause at no distant date.

THE prospect of the International Medical Congress of 1893 in Rome is likely to direct the attention of the medical world in an unusual degree to Italy during the next twelve months. A brief survey of the condition of that country with regard to the prevalence of one of its chief scourges—malaria,—as revealed by the most recent official information, will not be without interest to our readers. The present generation of medical men are apt to forget that time was, and not so very long ago, when ague pressed heavily upon the population of these islands and formed one of the most serious items in the annual bills of mortality. The progress of agriculture, the drainage of marsh lands, the general elevation of the average standard of comfort amongst us, have done much to banish it; but there are still districts which are, at least by comparison, distinctly productive of ague, such as Huntingdon, Cambridgeshire, and parts of Kent and Surrey. In the main, however, the improvement in this respect in the British Islands is most notable, and no doubt many medical men in different parts of these islands pass many years of active practice without once seeing a case of indigenous malaria.

Very different is the state of Italy, which ranks among the

countries in Europe in which ague is most prevalent The deaths from malaria in that country amounted (according to Dr. DAVIDSON) in one year—viz., 1887—to 21,033, which would give the very high rate of 700 per million living. When we point out that this is only slightly below the mortality which scarlet fever causes amongst ourselves, it will be seen how important a *rôle* malaria plays in the pathology of Italy. The prevalence of the disease varies greatly in different localities and at different periods of the year. According to the authority just referred to, the most malarial districts are Basilicata (the region just north of the Gulf of Taranto), Calabria, Sardinia, Apulia, and Latium, while the disease is less prevalent in the districts of Liguria, the Marches, Tuscany, Lombardy, Umbria, and Piedmont. The variations are notable. Thus Basilicata shows a proportion of 822 deaths from malaria to 10,000 deaths from all causes; Latium, a proportion of 490; while the rate falls to 52 in Tuscany, 38 in Lombardy, and 7 in Liguria. This last figure is very reassuring to the vast numbers of invalids and tourists who annually seek health and relaxation in the Riviera and along the beautiful shores of the Gulf of Genoa.

The rates of mortality from malaria in the various Italian towns bring out many interesting facts. Rome indisputably takes the first place of all the large cities. The rate there is about 12 deaths from malaria per 10,000 of the population, which compares very unfavourably with the rate of 5 in Messina, 1·9 in Palermo, 1·2 in Milan, 0·9 in Venice and Naples, 0·2 in Florence, and 0·1 in Genoa. We were scarcely prepared to find the bad pre-eminence of Rome so decided, or for the remarkably good place taken by Venice, Naples, Milan, Florence, and Genoa. It will be seen from these figures that temperature alone will not account for the varying degrees of mortality from malaria, although on the whole the northern parts of the country suffer much less than the southern. We can imagine few more interesting problems in geographical pathology than the working out of the causes of this disparity. The salubrity of Venice is remarkable. Dr. DAVIDSON rather ingeniously suggests that it may be regarded as very much in the position of a vessel anchored out at sea.

There seems ample evidence of the good results which have accrued in various parts of Italy from drainage, and also from preventing the admixture of fresh and salt water in the lagoons of the littoral districts. Malaria has waxed and waned in many places just in proportion to the efficiency with which such measures have been adopted and kept in operation. Of the various forms of malaria in Italy, quotidian remittent fever is the most frequent amongst newcomers. Tertian takes the first place amongst residents, and quartan and other varieties are less frequent.

Very curious are the facts regarding the prevalence of malaria in Rome and the Roman Campagna. The most densely peopled and filthiest regions in the central parts of the city suffer least, while "the less densely peopled suburbs, where the houses are few, well built, surrounded by gardens, and apparently answering the conditions required for perfect salubrity, are extremely unhealthy. In the Campagna fever exists independently of any marsh. In this plain there are only a few cultivated spots. The danger of encountering the exhalations is such that the harvesting has to be done, as it were, stealthily, and with precipitation, in order that the sojourn in the plain may be as brief as possible. It seems as if each harvest were "a sort of larceny committed upon this murderous soil." Still worse than the dry plain are the neighbouring marsh lands of Ostia and the Pontine Marshes.

We confine ourselves at present to the mere question of the localisation of malaria, but we must not leave the subject without some acknowledgment of the excellent work accomplished by Professor MARCHIAFAVA and Dr. CELLI in investigating the pathological conditions present in these cases. The subject of melanæmia, the elucidation of which owes so much to their researches, is one of great interest and importance.

Italy must always possess supreme interest to the artist, the poet, the historian, and the student of human progress and development. Her "dono infelice di bellezza," of which FILICAIA sings, has contributed to make her the scene of many of the most stirring events in human history, and her attainment during recent years of an assured place amongst the great Powers of Europe has nowhere been more sincerely hailed than in Great Britain. She has still many great problems—social, economic, and political—awaiting solution, and amongst these few touch more closely the happiness and well-being of her people than the measures to be taken to abate in her midst the prevalence of the great, but preventable scourge of malaria.

THE reassembly in Paris of the late Venice Sanitary Conference gives some hope that the difficult question of the sanitary control of shipping in its passage from the Red Sea into the basin of the Mediterranean at last approaches a point when it bids fair to be solved. Again and again for the past thirty or forty years have the various European Powers assembled in conference on this subject, and although they have on each new occasion suggested restrictions which savoured less and less of severity, yet the adhesion to quarantine as the basis of such restrictions has always prevented this country from consenting to be a party to any convention dealing with the subject. The Venice Conference in January last was evidently intended by our Government to be, in the main, a work of diplomacy, and the delegates representing this country were chosen accordingly. But France at once flung down the gauntlet and demanded that the question should be controlled by considerations of public health, and the other Powers, finding that the French had already prepared a code on this basis which was much more acceptable to them than the diplomatic arrangement that had been contrived between Austria and England, at once determined to discuss the French proposals. These, after having been materially modified and improved in the direction of such leniency as England always aims at securing, were signed by all the Powers represented except England and Turkey. For awhile, it was hoped that England's assent was only temporarily withheld, but it soon became evident that there was no chance of securing it except as the result of a further substantial modification of the convention arrived at in Venice. Hence the present reopening of the confer-

ence in Paris. On this occasion the matters under discussion appear to be essentially medical ones, and though the three Powers that are represented at it—namely, Austria, France, and England—have each appointed a diplomatic delegate, yet it is generally understood that it is the technical delegates—namely, Dr. THORNE THORNE, Professor BROUARDEL, and Dr. PROUST—with whom it mainly rests to arrive at such conclusions as will be acceptable to the French and English Governments. Should such a result be attained, it is to be hoped that the other Powers will assent to the conclusions arrived at by the two countries whose interests in the Suez Canal and in the Mediterranean altogether outweigh those of the other European Governments. We have learnt from our Paris correspondent that, according to French views, the French delegates have done very much to meet the demands of England; and that the point on which this country is most sensitive is the detention at Suez of persons who, though as yet healthy, are looked upon as suspect because they happen to be on board a vessel on which there has been cholera between the date of its departure from Indian ports and its arrival at Suez. No one would pretend that, even were the safety of the passengers alone concerned, such vessels ought to be free from all restrictions; but we have a strong conviction in this country that absolute cleanliness and such disinfection as is capable of being carried out on a properly appointed vessel is practically sufficient to do away with such risk as attaches to the existence at some antecedent period of the journey of one or two odd cases of cholera. And, as a matter of fact, we know that for a long series of years so-called infected vessels have not constituted any danger to the Mediterranean or to our own ports, even when all the so-called suspected persons have been left on board. Under these circumstances it is but natural that England cannot consent to any wholesale landing from her vessels of these persons on the shores of the Red Sea, merely because other nations dare not admit their own vessels into their own ports under similar circumstances. The reopening of the Conference seems to suggest that the demands of France in this respect may be curtailed, and that England may make some advance with a view to meet them; and the visit of the British delegates to the Foreign Office last week to confer at home on the new points raised again implies that matters are proceeding more satisfactorily than at any previous Conference. Since the return of our delegates to Paris a further sitting of the Conference has been held. We learn that the most cordial relations exist between the several delegates, and that the French delegates are willing, beyond any former occasion, to give such facilities to England in the passage of the Suez Canal as is demanded both by her commercial interests and her well-known advance in public health, whether on shore or at sea. France is, we think, herself recognising as she never has done before how quarantine may without risk be superseded by efficient sanitary control. Years ago it was sought to abolish the word quarantine; but it was impossible, for the system was retained under a new title of "observation." Now, at last, there seems a chance that, as regards the Suez Canal, all semblance of the ancient system may disappear. England is not particularly discontented with the Egyptian restrictions as now imposed; but the Alexandria Board possesses powers far in excess of those she at present exercises, and on the advent of any cholera scare in Europe there is no knowing what severities might not be reproduced. For these reasons alone we shall be thankful to find that France and England are of one mind in this matter. Their joint influence on the remainder of Europe must certainly be considerable.

Annotations.

"Ne quid nimis."

METROPOLITAN HOSPITAL SUNDAY FUND.

WE would remind our readers that the annual public meeting at the Mansion House in support of the Hospital Sunday Fund has been convened by the Lord Mayor for Friday, June 17th, at 3 P.M. Mr. A. Egmont Hake will deliver the address, and be supported by several influential speakers. We trust that there will be a large attendance of the public in general and members of the medical profession in particular. Nothing can prove more strongly the deserving character of the movement than the interest taken in it by our professional brethren.

THE COUNCIL ELECTION AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE would remind Fellows of the College who are thinking of becoming candidates for the Council of the College that the 13th inst. is the latest date for sending in nomination papers. The advertisement of the meeting of Fellows for the election of councillors appeared on Friday, the 3rd inst., and every eligible Fellow desirous of seeking a seat in the Council should within ten days from the publication transmit or deliver "a duly signed notice to the secretary of the College." That this reminder is not superfluous may be inferred from the fact that last year one of the intending candidates forgot to send in his papers till the eleventh hour, when several Fellows met at the College to sign a nomination paper for the forgetful candidate, and telegrams and special messengers were despatched in every direction and extraordinary arrangements made for the reception of the declaration of the Fellows for the purpose of conforming to the letter of the by-laws. Up to the present time the names of eight intending candidates have reached us. In addition to Mr. Thomas Smith and Mr. A. E. Durham, who desire to be re-elected, the names of Mr. Cowell, Mr. Warrington Haward, Mr. McCarthy, Mr. Howard Marsh, Mr. Henry Morris, and Mr. John Tweedy have been reported to us. If all these candidates go to the poll, the election will be a very open one; but of course at the last moment some of the names may be withdrawn. It is to be hoped that candidates who intend to withdraw will not leave their retirement to the last moment, but will withdraw before their names are printed on the voting papers or published in the *London Gazette* and two London daily newspapers. This publication must take place not less than ten days before the day appointed for election. As the *London Gazette* is issued on Tuesday and Friday, the publication will probably be made on Friday, June 24th. Until the names of the candidates appear in the *London Gazette* it will not be possible to say positively what candidates will go to the poll, and we shall defer comments upon the claims of the candidates until the process of natural selection and survival of the fittest has worked itself out.

DISPARAGEMENT OF MEDICAL CERTIFICATES.

THERE is a disposition to make too much of Mr. Justice Hawkins' reflections on the value of medical certificates. Even judges sometimes speak in haste and make all the members of a body suffer for the sins of two or three of its members. This is, at any rate, not very judicial. If a judge is dissatisfied with a medical certificate or suspects it, he has the power to require an independent one. There is a disposition in some quarters to attribute all the financial embarrassments of benefit societies to the carelessness with which the medical officers give medical certificates, failing to detect malingering, and other deceptions. We should require better evidence of this than has appeared. We could have no sympathy with medical men who, to curry favour with members of benefit societies, give them false certificates of sickness. If the scale of such false certification is anything like that alleged as obtaining in a certain society, the authorities should prove it by a careful investigation of cases by an independent examiner. We should like to know more particularly from whom false certificates do proceed, whether from registered practitioners or from unregistered. It is only necessary to demonstrate such a breach of morals to the Medical Council or the examining board from which the practitioner holds his diploma to bring down on his head severe censure, and possibly to ensure the erasure of his name from the Medical Register. And in taking such a course the Medical Council or the examining bodies would have the full sympathy of the profession. Only there must be evidence. We deny that evidence on any such scale as to affect the general value of medical certificates has been produced. We shall hear from medical men their answer to these charges.

SUCCI'S MADNESS.

THE Italian fasting-man has succumbed to the fate which many of his compatriots anticipated for him—he has lost his reason and is now an inmate of the Asylum of Saint Anne in Paris. It is not so long ago that he was in London repeating, or attempting to repeat, the continuous abstention from food which had procured him such notoriety in Florence and elsewhere. He broke down, it will be remembered, and the failure to accomplish the self-imposed feat preyed on his mind, which, at the best of times, could never be called sound. From London he repaired to Paris, and there, it seems, such mental sanity as he preserved gave way, and, after comporting himself in an obstreperous and even wild manner on the Boulevard des Italiens, he was removed by the Commissary of Police, protesting that he was the "Emperor Cæsar." This was on the night of the 29th ult.; but some days before he had been observed by his Parisian neighbours to be dejected, taciturn, and troubled—in the state, in fact, which usually precedes an outburst of mania. At the infirmary of the depôt to which he was taken by the Commissary his demeanour became hourly more excited, and he passed the night in a furiously maniacal condition, shouting, gesticulating, and blaspheming in the polyglot dialect of which he is a master. Seen next day at noon by Dr. Garnier, he was pronounced to be labouring under the form of mania known as "religious persecution," not actually dangerous to himself or to bystanders, but apt, in all likelihood, to become so. This development of insanity is often a derivative from what Italian alienists classify as "megalomania"—the madness of self-exaltation, of which, in the spring of 1888, when he performed his great fasting feat in Florence, he betrayed the premonitory symptoms. Those who saw him at that time, watched night and day by relays of medical undergraduates in his room attached to the Istituto di Studi Superiori, could not fail to detect the diseased self-importance which characterised his demeanour and conversation, more particularly when he attempted, in the daily ride allowed him under surveillance, to cross the path of Her Majesty Queen Victoria, whose notice he did everything to attract. No doubt the nutrition of his brain was seriously affected by his abstinence from food, and the inhibitory paresis that must in any case have overtaken him was accelerated, if not actually invited, by the practice. We trust his fate will act as a warning to those who would follow in his footsteps, and deter them from a repetition of feats which have long ago yielded whatever scientific fruit they were capable of bringing forth. Certainly, of all the "careers" known to a century prolific in eccentricities the stupidest, if not the ignoblest, is that of the professional fasting-man—earning his bread by refusing to take it!

SIR GEORGE HUMPHRY ON THE NEW CAMBRIDGE SCHOOL.

SIR GEORGE HUMPHRY on the "Medical School of the University of Cambridge" is like Cicero "Pro Domo Sua"—discoursing on the subject of which he, of all others, is best qualified to treat. The great seats of learning on the Isis and the Cam, till late in the present century, maintained an attitude to the medical sciences by no means in keeping with their position as Universities, with the resources at their command, or, in short, with their duties as representatives and foster-mothers of post-Renaissance culture. Competition, however, an equivalent for "that blessed word compulsion," forced them, in self-defence, to recognise the daily growing claims of medicine as a science, and even as an art, and, not a moment too soon, they widened and deepened their curriculum so as to supply the training, professional and still more pre-professional, for which the young medical aspirant had had previously to repair north of the Tweed or across the Channel. At Cambridge a beginning was made in this direction sixty years ago, when a building for anatomy and medicine was established in Downing-street, and about the same date a nucleus of an anatomical and pathological collection was formed in the museum. At that time, however, the pupils were few in number—"no more than four or five annually," says Sir George Humphry—and not till a generation afterwards, when regular clinical teaching was made possible at Addenbrooke's Hospital, and practical anatomy, with physiology, minute anatomy, and comparative anatomy, received something like due attention, did the medical student find it worth his while to prepare for his profession on the banks of the Cam. It was the institution of the Natural Sciences Tripos in 1857, however, as an avenue to medicine that put Cambridge on the lines upon which she has continued to advance as a great medical school. With the increased influx of students her teaching became subdivided and perfected, her examinations were made more stringent and more practical, and fresh professorships, lectureships, readerships, demonstratorships, and assistantships were from time to time added to meet demands. At the present moment, indeed, she can point to an excellent medical teaching staff, and the education she can now supply to the student finds yearly a more extended appreciation, till in point of attendance in her class-rooms she ranks as one of the largest medical schools in England. To have "qualified at Cambridge," indeed, is about as valid a certificate of proficiency as the academic world can show, implying as it does a previous grounding in classics and mathematics, followed up by a superstructure of physics, chemistry, and biology, and thereafter by further courses of anatomy and physiology, such as no other seat of learning can surpass before "crowning the edifice" with strictly professional qualification in medicine and surgery. These pre-professional studies she carries on

under peculiarly favourable auspices, away from the distractions and temptations of life in great cities during the "years of April blood," in surroundings which, according to Mark Pattison, should be those of "University and poet's garden" alike—"not wholly in the busy world, nor quite beyond it." The aroma of academic culture never leaves the professional man whose early impressionable manhood has been attained in "the ampler ether, the diviner air," of a fully equipped University, redolent of the *spolia opima* of centuries of moral and intellectual triumphs; and with the character, the mental tone thus formed, he enters on the specially qualifying course—that of clinical observation and research in the hospitals, of which London offers the largest and completest supply. Medicine proper, surgery, and gynæcology, the next stage in the Cambridge student's career, find him, therefore, in the metropolis, with formed habits of study, with a high standard of proficiency—with, indeed, all the pre-requisites of that "complete professional mind" on which Sir Henry Acland has so eloquently insisted. He is thus at a very considerable advantage over the student who, however able and enthusiastic, has had no University career or associations, but has simply passed from the public school to the teaching staff connected with an urban hospital. Still more is he fitted to profit by attendance at the great continental cliniques—such as Berlin, Vienna, or Paris—and to perfect himself by familiarity with the methods and the practice of European schools for the position of consultant in the most cosmopolitan of all professions. In summing up the opportunities and advantages Cambridge can afford the aspirant to the higher medical honours, Sir George Humphry gives reasons as cogent as they are candid for the attractions she yearly holds out to an increasing number of students; for admitting that London and the chief cliniques abroad are simply indispensable for the training which must precede all practice at the bedside, he makes it no less clear that the well-disciplined mind, such as a University has special means of forming, is equally indispensable for profiting by that training to the full. "A great physician is a great artist" is a true and a memorable saying; but, unless history belies herself, the great artist, whether in medicine or in any other professional calling, has incomparably the better chance of excelling if his native aptitude has been developed and reinforced by early proficiency in the culture on which his peculiar art depends.

SLEEPLESSNESS.

WHETHER, as appears likely, sleeplessness is more characteristic of our own days than those of our predecessors, or that, in accordance with a scientific fashion, it is now more noticed, we certainly hear of its prevalence with somewhat startling frequency. The nostrums proposed for the cure of this disorder are numerous. Many, if not most of them—we do not for the moment speak of narcotic drugs—are empirical, and are cast upon the public intelligence without any conscious reference to causes actually at work upon the brain and other nervous tissues. It does not necessarily follow that they are valueless, and we should no more think of repudiating their ordinarily legitimate exercise than of refusing the occasional aid of such medicinal agents as may be trusted safely to discharge the same needful function. It is to be understood, however, that we would, wherever possible, avoid, and replace by simpler non-medicinal methods, even such occasionally useful aid. This attitude is but rational, if we consider that the true object of treatment is never by choice merely palliative, but curative, and for cure there is needed the detection and removal of an active cause. The revelation of the causes of insomnia is, indeed, no simple matter. Thus much, however, we may say—namely, that just as the state of the brain in normal sleep implies a quiescent cerebral circulation somewhat reduced in volume, so in those whose nights are habitually restless we shall commonly find a condition of cerebral vascular tension. This, let it be noted, is not incompatible with general anæmia or with defective brain nutrition. There is, indeed, nothing so conducive to local vascular congestion as the constant exercise of a weakened organ. Mental worry thus acts upon the jaded brain, and we need not wonder, therefore, that it "murders" sleep. The true means of relief is as clear as it is often impossible. In such cases, however, and still more in others where adequate, or even more than adequate, nutrition is maintained, we find a simple and ready antidote in physical exercise. Muscular activity, in fact, may be employed to balance nervous irritation. In it we provide a means of counter exhaustion. There is a transference of vascular excitement, and of tension, with corresponding relief at the site first affected. Further, the same process implies a stimulation of the general metamorphic energy and the removal from the tissues of irritant excretable products. This brings us to another cause of insomnia, particularly of that which we sometimes observe in the gouty and rheumatic. It is probably on the ground of removal of such superfluous substances that we must explain the salutary action of the traditional "night-cap" of hot water, or the boiled onion, a stimulant of the kidney, at supper. Where mental over-activity or irritation has to do with insomnia, the influence of change—that is, of a change in thought—should have a trial. It is no doubt a blind groping after this remedy that induces some to read themselves asleep. Better in several ways is the practice introduced by the German Kant, who spent some time before he retired for the night in cutting off by an effort of thought each mental occupation of the previous working hours. We might, however, multiply the stock of remedies without meeting all possible needs. The desirable course for any sleepless unfortunate to adopt is obviously not to resort to sedative drugs to allay his distress, but to seek the advice of his trusted medical attendant and its remedy in the discovery and the removal of its cause.

THE HYGIENIC EXPOSITION AT MILAN.

EARLY in the year we drew attention to the "Esposizione Medico-Igienica," which it was proposed to organise in Milan in the ensuing summer, and we referred to the novel features which would make it in some important respects unique among exhibitions of the same kind. These anticipations have been fully realised, as the numerous public which has thronged its departments ever since its opening on the 30th ult. continues to attest. The Museo Civico has been set apart for it by the Municipality, while the coöperation of the Government, represented at the inauguration by the Prefect of Milan, has stimulated competition by the facilities placed at the disposal of exhibitors from all parts of the peninsula. No more significant proof of the advance Italy has made in hygiene, public and private, could be put *en évidence* than the ample and varied assortments of mechanical, chemical, surgical, and orthopædic appliances now on view in this her latest and best organised exhibition. She has profited by comparison of her own resources in sanitation with those of other States, European and transatlantic, and, while adopting and sometimes improving upon their special products, she has contributed others of her own, from which they, in turn, have not a little to learn. Notably is this the case in the sections devoted to the *armamentarium* of the Red Cross, a movement which, with justice, we believe, she claims to have suggested and set on foot, long before its international recognition by the Geneva Convention. In keeping with this parental pride in it, she has brought to the

amplification and the perfecting of its contrivances for raising the wounded from the battlefield, for transporting them to the stations of first assistance, and for their clinical tendance and treatment in ambulance, an ingenuity, a patience, and a success which recall the proficiency she displayed in surgery and medicine during the best years of the Renaissance. The "Sezione del Sotto-comitato Milanese della Croce Rossa" (Section of the Milan Subcommittee of the Red Cross) is, in fact, the most striking and attractive feature of the whole exhibition, as is evidenced by the full and continuous flow of visitors who gather round its novel and really artistic "objects of interest" throughout the day. Admiration seems divided between the new "Ospedali da Montagna" (mountain hospitals), fitted up for fifty beds apiece, with the most ingenious contrivances for combining convenience and comfort with lightness and mobility, and the hardly inferior ingenuity shown in the "Ambulanza Fluviale" (river ambulance), or means of transporting the wounded in war *vid* the waterways, natural and artificial, by which Lombardy, for example, is intersected. A full description of this latter addition to the resources of the Red Cross has already been given in our columns; and now these resources are on the high road to completion by the contrivance of light hospital railways to run in correspondence with the network of transport by water, as already systematised from the Lago Maggiore to the mouth of the Po, and including ample canal communication between Milan, indeed, has taken the initiative in utilising these "silent highways" for Red Cross mobilisation, as was fully admitted at the general assembly of the Croce Rossa Italiana held on the 30th ult. in Rome. But her supremacy in sanitarian and hygienic progress is not confined to that movement. Her "Esposizione" affords proof, enough and to spare, that the lead she assumes in commerce and industry has its counterpart in science—especially in the mechanical *matériel* of public health and its administration. Those of our readers who can command the time, or whose presence in Switzerland or at the Italian Lakes puts them within easy distance, might profitably devote a few days to this exhibition, worthy as it is of the best traditions of the Lombard capital under the fostering care of young Italy, united and independent.

EXCRETION OF UREA IN BRIGHT'S DISEASE.

IT has long been known that the daily excretion of urea is diminished in Bright's disease, but it is not a universally acknowledged fact that this symptom precedes the other positive evidences of the disease for a considerable period. In the *American Journal of Medical Sciences*, vol. xcii., p. 22, Dr. C. J. Bond, of Richmond, Ind., maintained three years ago that this was the case, and published fifty cases illustrating his views. Four of these cases, besides showing a diminished daily excretion of urea, passed large quantities of albumen, with casts in the urine. They proved fatal, and in three of them, in which post-mortem examinations were made, chronic interstitial nephritis was found. Three more of the cases showed diminished secretion of urea, but no albumen or casts were found in the urine; and one of these was proved after death to have been suffering from nephritis. Three other cases that died likewise had diminished urea excretion, but only passed albumen and casts in the later stages of the disease. A necropsy was obtained in one of these cases and showed chronic nephritis. The remaining forty cases recorded, were all living at the time of the report. All had symptomatic evidences of Bright's disease, eighteen had albuminuria, sixteen of them passed casts, but in all the excretion of urea was diminished. Upon these grounds Dr. Bond claims that diminished excretion of urea is an evidence of Bright's disease, and the earliest certain symptom. But for this sign to be of importance the patient must be upon a mixed diet, and the diminution of urea must exist during a considerable time as shown by frequent examinations. Extending his researches, Dr. Bond[1] has called attention to the relation of urea excretion to disease of the serous membranes. It is well known that Bright's disease is often complicated by a sudden effusion into the pericardium or pleural cavity. It occurred to Dr. Bond that inflammations of serous membranes might at times be caused by latent Bright's disease—that is to say, by the conditions preceding the manifestations of the disease; and if so, such cases could be differentiated by diminished urea secretion, and upon actual examination he found this to be true. One of the most interesting cases which he reports in this connexion is one of acute pelvic peritonitis in which no specific history, no previous pelvic troubles, and no traumatic or other cause could be found. The attack commenced with chilly sensations and acute pain in the abdomen, followed by serous effusion. The case terminated in recovery, the effusion being absorbed; but the patient still complained of headache, slight nausea, dyspnœa on exertion, and general weakness. Examination of the urine showed no albumen or casts, but the daily excretion of urea was considerably diminished. Six months later there was a relapse of the peritonitis, which was, however, cut short by treatment with pilocarpine and saline cathartics. In addition to this case, Dr. Bond refers to three more cases of pelvic peritonitis, to four of pericarditis, two of arthritis, and four of endarteritis which showed diminished excretion of urea. These observations of Dr. Bond are of considerable interest, and he has pointed out an important diagnostic sign. At least, diminished excretion of urea is an evidence of deficient elimination, and is a means of determining when certain conditions, particularly serous inflammations, are autogenetic.

"AN AMERICAN LEPER."

DR. MONTGOMERY, Professor of Pathology and Clinician for Diseases of the Skin in the University of California, Clinician for Diseases of the Skin, San Francisco Polyclinic, publishes in the *Pacific Medical Journal* for April, 1892, under the above heading, some particulars of a case of leprosy. The patient was a man forty-three years of age, born in Massachusetts of American parents. He had never been "out of the United States, excepting a few hours in passing from Buffalo to Detroit over the Canada Southern Railway." This man died a leper in the San Francisco Pest-house last February. Twenty years before his death he had a "sore on the penis" after having had connexion with a white woman. This occurred while he was living in the State of Navada, and "shortly after the acquisition of the sore, and while still in Navada, he had charge of a gang of Chinamen on the railroad." While in that position he had frequent connexion with Chinese prostitutes, who were inmates of the camp. He "did not remember that any of the Chinese" showed symptoms of leprosy. Also, he remarked that "he did not know anything about leprosy at that time." About thirteen years after these events "he noticed areas of brown discoloration on the body and limbs." These symptoms were regarded as due to syphilis, and were treated from that point of view. It was not until two years later that his real condition of disease was diagnosed by Dr. G. L. Fitch of San Francisco. Six months after that date he entered the San Francisco Pest-house, where he remained for two years, when he left the institution for about a year, and then returned and lived during his remaining year of life in the Pest-house. His

[1] Abstract in the Journal of the American Medical Association, vol. cii., p. 269.

leprous condition was a typical one, and the bacillus lepræ was found in a leprous nodule which had been removed from the inner side of his left leg. Just now a certain amount of special interest attaches to this case, and the reason for this is stated in the opening sentence of the account of it from which we have quoted. It is this: "The contagiousness of leprosy, and the likelihood or unlikelihood of its spread in the United States, and especially in those States fronting the Pacific Ocean, and in active communication with countries where leprosy is endemic, such as China and the Sandwich Islands, is exciting so much attention now that any case of an American acquiring the disease in the United States becomes of uncommon interest."

FUNERAL REFORM.

FROM the *Morning Call*, a newspaper published in San Francisco, we learn that, thanks to the individual perseverance of a Captain George A. Raabe, great progress has been made there towards abolishing the dangerous custom of standing bareheaded at funerals. It would seem that there is every prospect of "hats off" becoming the exception. This is as it should be. The lamented death of the Duke of Clarence and Avondale followed by those of less illustrious persons shortly after attending funerals bareheaded called serious attention to this matter, and, what is of more importance, kept it there. At many funerals the officiating clergymen warned the attending mourners and friends of the deceased against the dangers of removing their hats, and the advice was followed. The winter and spring are passed and the summer is at hand. Still we would counsel the wearing of the hat at funerals in summer as in winter. Standing bareheaded beneath a burning sun has its own peculiar dangers, which need not be further specified. And even in hot weather colds may be very easily contracted. Our climate, in short, is one which does not admit of persons going about bareheaded, and those who do so must expect to pay the penalty.

THE LOCAL GOVERNMENT BOARD AND THE MEDICAL OFFICERSHIP OF THE CITY-ROAD WORKHOUSE.

WE quite agree with a guardian that the Local Government Board ought to know "the facts of the case"—the case being that of Dr. Yarrow, medical officer of the City-road Workhouse, in whose place several of the guardians wish to place a resident medical officer. Dr. Yarrow is an officer of many years' experience, against whom no compaint has been made till quite lately, and all that was serious in that complaint fell through. It is monstrous that such an officer should have his office determined except on good grounds and with such compensation as to remunerate him for the loss. The Local Government Board seem to have been satisfied that it is desirable to appoint a resident officer. But they have very properly pointed out to the board of guardians that Dr. Yarrow must be compensated. According to the account in the *Islington Gazette* of the report of the General Purposes Committee, a member of the committee was not content with recommending the board to determine Dr. Yarrow's appointment, but suggested to the Local Government Board that the compensation allowance should not be a large one, taking into account the fact that Dr. Yarrow is at the present time medical officer of health for the parish of St. Luke's, "and to which, it was understood, he should devote the whole of his time." At another stage of the debate it was stated that Dr. Yarrow got £80 as public vaccinator. We cannot doubt that the Local Government Board will ascertain the truth of these statements before agreeing to any inadequate compensation to Dr. Yarrow. Everybody knows that under the anti-vaccination craze the value of vaccination appointments has seriously fallen for the present, till sense and small-pox reassert themselves. As to Dr. Yarrow being expected to devote his whole time to a medical officership of health for £400 a year the idea is absurd. Dr. Yarrow was a man with many public appointments and a large private practice, and, if we are rightly informed, he gave up his private practice and his police appointment when he obtained the medical officership of health, but with the distinct understanding that he was to retain the officership of the workhouse and the public vaccinatorship. If this be so, the Local Government Board must see that they get accurate information with reference to the compensation of Dr. Yarrow.

LOW TEMPERATURE AND PHTHISIS.

OF all devices which, since its discovery, have been attempted to destroy the bacillus tuberculosis in the body none, perhaps, is more irksome—and, indeed, barbarous—than that of keeping the unfortunate victim of phthisis in a cold temperature, as if the normal temperature of the blood were in the very least affected by that of the atmosphere. Nevertheless, such views are held by the Russian physicians who have the care of the health of the Czar's second son, the Grand Duke George, who developed symptoms of pulmonary disease when on his Indian tour. He has, we learn, been spending the winter at Abbas-Tuman, in the Caucasus, dwelling in barely furnished rooms, with little bedding, only a very moderate fire, and the windows continuously open. No doubt the pure mountain air is the chief agent in the effort to keep the disease in abeyance, and not the cold, which has been so severe that his Royal Highness's attendants have suffered greatly from it; and we trust the hopes of the physicians that the Grand Duke will in two years' time have completely recovered may be realised. Very likely he would have done equally well at Davos or St. Moritz, without such a sacrifice of that comfort which phthisical patients so much need.

NEWSPAPER COPYRIGHT.

THE proceedings taken last week by the proprietors of *The Times* to assert their proprietary rights in copyright matter appearing in their newspaper has had the effect of eliciting from the judge who heard the cause a very important declaration as to the effect of the law upon this subject. There has gradually grown up a system of newspaper production by quotation which has received some very striking developments in recent times, and it is not unnatural that those who bear the cost of providing original matter should become increasingly desirous of monopolising, as far as possible, the commercial fruit of their enterprise. At the same time, it is easy to see that where current news is in question, the definition of a satisfactory copyright becomes exceedingly difficult. It was accordingly upon those parts of *The Times* case which related to paragraphs of this description that the counsel who appeared for the *St. James's Gazette* took their stand. Plainly the mere accident of being first to learn and publish a fact cannot be permitted to give to its publisher the right to forbid anybody else from communicating the fact, whether by print or otherwise. Inasmuch as in current news the fact is commonly everything, the literary form a matter of small or no account, it seems idle to assert a copyright in matter of this description. But Mr. Justice North did not dispose of the matter in any rough-and-ready manner of this sort. He held that the plaintiffs were entitled to a copyright even in these short paragraphs of news, but he took care to discourage litigation based upon any such minute grounds of complaint as the infringement of such rights could furnish

by refusing the plaintiffs' costs so far as these particular matters were concerned. Probably a right recognised in law, but in practice fettered by the risk of incurring incommensurately heavy costs is the best practical solution of the difficulty. It is not logical, nor is it quite easy to explain; but it is very easy to understand, and it has a tendency to make both parties desire to act well within their rights—a temper which, when such delicate matters as literary properties are concerned, is eminently worthy to be commended.

THE AFTER-CARE OF THE INSANE.

WE would direct the attention of all who take an interest in the welfare of their suffering neighbours to the work of practical kindness carried on by the London After Care Association. Instituted for the benefit of poor convalescents from mental disease, this Society is exercising alone, and under considerable pressure of adversity, functions as distinguished by their conservative utility as they are humane. Its objects are to provide for the boarding out in country homes of the class of convalescents already mentioned, and to find occupation for such of them as may be able to follow a calling. Gifts of clothing and the like are allowed in suitable cases. The total number of applicants during the year ending June, 1891, was seventy-three as compared with sixty-six in the year preceding. The number of working associates has considerably increased. Unfortunately we cannot say as much for the funds of the Society, which have undergone an appreciable, though not a great, reduction. In estimating the practical value of the Society's efforts, we have to take into account the fact that the afflicted persons whom it assists are, by the very nature of their illness, excluded from the majority of ordinary convalescent establishments. This circumstance alone should suffice to justify the claim for public support issued by the Association. If still further proof be desired, it is to be found in a report of the Council for 1890-91, published by E. A. Beckett, 111 and 113, Kingsland-road, N.E.

AMŒBIC DYSENTERY.

ATTENTION has already been drawn in these columns to a form of dysentery characterised by the appearance of amœbæ in the stools. An elaborate series of investigations on this subject was undertaken by Drs. Councilman and Lafleur, of New York, and their results are published in the Johns Hopkins Hospital Reports, vol. ii., Dec. 1891. We shall only refer here to the description of the pathogenic micro-organisms. The amœbæ have already been described by Lörch, Kartulis, and Osler. In searching for the organisms some choice had to be exercised in the portions of stools destined for examination. Thus they were rather more numerous in the small gelatinous masses which were often contained in the fæces than elsewhere. The numbers of them which were found in the different cases, and even in the same case, at different times, varied greatly. At times no single portion of the fæces which could be examined was free from them. In other cases single examples of them were only found after long and careful search. Their numbers in general were proportional to the severity of the lesions. They were most abundant in the cases in which the lesions were most acute and most extensive. The amœbæ differed somewhat in appearance according as they were active or inactive. In an inactive condition they were round or slightly oblong, and were more refractive than the other cells which surrounded them. In this resting condition there could frequently be distinguished no division into an ectosarc and an endosarc, but there appeared to be simply a body enclosing vacuoles of greater or less size. These vacuoles were clear, and their contents much paler than the substance which enclosed them. They varied greatly in size. Some were found one-third the diameter of the entire amœba; others were much smaller, and in some cases the whole mass was so filled with tiny vacuoles of equal size that the organisms resembled a compound granular body. In other cases there was a sharp division between the outer and the inner portions of the amœba. The outer portion was composed of a pale hyaline or homogeneous substance, and the inner contained vacuoles and was much more refractive. The amœbæ were difficult to recognise in this condition unless active ones were found at the same time, and so attention was directed to their presence, otherwise they were easily overlooked. Their appearance when moving was characteristic. The activity of their motion, however, varied greatly in the different cases, and even in different observations made on the same case. Every degree of activity of movement could be seen. At times the movements were so slow that the observer had to look carefully for some time to be sure that any change had taken place, whilst at others the movements were so rapid that certain of their phases could scarcely be followed. The movements consisted essentially of two kinds, a progressive movement and one limited to the thrusting out and retraction of pseudopodia. In some instances there seemed to be a certain rhythm in these movements, which occurred at regular intervals. An amœba in which no movement could be detected would suddenly make one or several quick movements, thrusting out large pseudopodia or even changing its position, then become perfectly quiescent, suddenly repeating the movements after an interval. The movements were increased when the examinations were made on a warm stage. Various bodies were frequently enclosed in the amœbæ. The most common of these were red blood-corpuscles, which were often found in considerable numbers. Many of them were perfectly preserved; others had lost their colour, and could be recognised only from their outline. Pus cells, well preserved, or in various stages of disorganisation, were also seen, either in the ectosarc or in the vacuoles. Both bacilli and micrococci and the spores of the former were sometimes seen in them. Blood pigment was occasionally found under two forms—as irregular brown masses or as distinct black granules. These granules were often arranged in the form of a distinct ring, but this formation was more often seen in the amœbæ in sections of intestine than in the fresh specimens.

MORE STREET DANGERS.

IF we were to examine the matter thoroughly, we should probably find that hardly any accident which occurs is the result of a single cause. This point is, at all events, clearly brought out in the history of a case recently decided in the Marylebone County Court (Nunning *v.* Peter Robinson). The plaintiff, while passing along a pavement one evening, struck his foot against the projecting metal of a wooden flap let into it, tripped, and fell. The plea of contributory negligence, on his part not being made out, the defendant, the owner of the flap, was cast in damages somewhat heavily for allowing the existence of a dangerous obstruction. It is easy to understand the meaning of this verdict. Its logical consistence is of course apparent. At the same time, we must admit a certain degree of sympathy with the defendant, more especially as the roadway in question is said to have been fairly lighted, and the obstruction by no means formidable or, indeed, other than trivial to persons walking by day, and using ordinary care. In this case the accident occurred after nightfall. Had it happened by day the suit might not unfairly have been dismissed. We would not, indeed, have any of the reasonable privileges of wayfarers encroached upon by those of property, but we are still of opinion that the former should not be altogether absolved from exercising the necessary elements of caution

required for personal security. All avoidable petty legislation is objectionable, and it would be the height of unreason to found a by-law on such an incident as this. Its most satisfactory result will doubtless be the removal of a number of prominent screws, nuts, and other obstacles from public footways; and we trust that, when these minutiæ are provided for, such relatively greater evils as the open trap-door which ought to cover the household coal-cellar or the store caverns of many City warehouses will also be considered and treated.

LEPROSY IN THE CAUCASUS.

IN a paper read before the Caucasian Medical Society, Professor Minkh gave a history of leprosy in the Terek district. He showed that it must have been in existence there amongst emigrants from the borders of the Don and of the Volga during the latter part of the last century, and that though there are no statistics of the number of persons affected up to 1840, it must have been appreciable, as there were lazarets in a good many places for lepers. From 1841 to 1883 the disease seems to have been steadily on the increase, but after that the number of victims rapidly diminished. It is an interesting fact that in localities where lepers were kept apart from healthy persons in special buildings the numbers attacked diminished, while in other localities where segregation was not practised they increased.

INFECTIOUS DISEASE AND SCHOOL CLOSURE.

INDICATIONS are not wanting that sanitary authorities throughout the country are beginning to act upon the knowledge so abundantly gained as to the close relation of the prevalence of infectious disease and the factor of school attendance. Thus, in the Watford urban and rural districts schools are being closed wholesale owing to the prevalence of scarlet fever and measles, and it is currently reported that there are more than 1000 children absent from school owing to this cause. Again, at Hale and Tongham, in the Farnham rural district, the schools have been temporarily closed owing to the reappearance of diphtheria in that classic haunt of the disease. Similar measures have been taken at the remote village of Garton-on-the-Wolds, in Yorkshire, where diphtheria has broken out. We trust that these several hygienic precautions will prove of use to the authorities concerned in repressing the spread of the infectious diseases with which they have to deal. But they must be carried out in a firm and complete manner. No half measures are of use in emergencies such as these.

LONDON SEWAGE.

THE present system of dealing with the sewage of the metropolis by chemical precipitation is, significantly enough, regarded as a legacy from the Metropolitan Board of Works to the County Council. An enormous sum of money was expended on its establishment, and it is thought that the system should have a fair trial before deciding on one still more expensive. So far, the method is in reality totally inadequate to deal with the requirements of the metropolis. The effluent appears to be clear, but the water all around the outfalls of Barking and Crossness is black and repulsive, and although it does not seem to contain suspended matter, yet doubtless it contains plenty of dissolved organic substances that readily undergo putrefaction, and such that will give rise to an intolerable nuisance. That the condition of the river does not improve is borne out by the fact that the dredging expenses of the East India Dock Company have in three years risen from £13,000 to £40,000, and this increase is attributed mainly to the way in which the sewage is treated. Apart from the public health point of view there are shipping interests to be considered, for it appears that the navigation of the river is seriously interfered with by the deposition of sewage matter. During the last year or so complaints have not been so frequent, probably because the weather has been of such a character as to provide an abundant supply of water in the river; but as soon as we experience a period of hot and dry weather such as we are now promised, all the abominations of a sewage-polluted stream may be reasonably anticipated. The sewage works at Barking and Crossness were visited and inspected by a special committee appointed by the Chamber of Commerce on the 3rd inst., and they considered that although some improvements had been effected since the early part of the year, very much yet remained to be done to render the sewage system of the metropolis perfect.

PROGRESS OF THE CHOLERA.

CHOLERA appears to be still raging at Meshed, more than a hundred deaths occurring every day. The last news is that the disease has appeared amongst the English camps in the hills, and that *cordons sanitaires* are being formed to arrest the movement of pilgrims. We had hoped that the last had been heard of this antiquated mode of warfare against disease, and that the time consumed in forming *cordons* might have been more usefully employed in the direction of an improved system of sanitary defence.

THE ROYAL SEA-BATHING INFIRMARY.

WE regret to observe that unless additional contributions are speedily forthcoming the Royal Sea-bathing Infirmary at Margate will have to reduce the number of its beds from 220 to 80. Such a curtailment of the benefits of so meritorious an institution would be a calamity, and we trust that the appeal published on Monday last will be successful in warding it off. That appeal was most influentially supported, the Archbishop of Canterbury, the Lord President of the Privy Council, the Presidents of the Royal Colleges of Physicians and Surgeons and of the General Medical Council being among the signatories. The Sea bathing Infirmary was founded in 1791, and is practically unique. After so long and useful a career, it would be pitiable were it suffered to fall into neglect. Rather should we be hearing of its extension and increase in accommodation than the reverse.

GLYCOSURIA FROM COAL-GAS POISONING.

THAT glycosuria is an invariable after-effect of poisoning by oxide of carbon is stated in text-books—mainly continental ones it must be admitted—as an irrefragable fact. Professor Jakesch, to instance one pathologist among many, gives currency to it in the last edition of his authoritative work. Dr. Garofalo, however, in a publication entitled "Glicosuria per Ossido di Carbonio e per Gas Illuminante," traverses this teaching in the most trenchant manner, grounding his criticism on data reached by himself after a careful series of experiments in Professor Colasanti's laboratory in Rome. Having reviewed the previous state of our knowledge on the question, as given in medical treatises and clinical memoirs, he proceeds to set forth the results he has independently obtained. He asphyxiated a number of dogs with vapour of carbonic oxide, and in no case found this mode of poisoning followed by the slightest vestige of sugar in the urine. Thereafter he made prompt and thorough examination of a clinical case of acute oxy-carbonic asphyxia, and again ascertained the urine to be totally devoid of sugar. From these observations, in which the search for sugar was conducted and checked by every test known to modern

analysis, he concluded that glycosuria, if really found in the renal excretion after carbonic acid or coal gas poisoning, is a purely accidental and variable phenomenon—a coincidence of two different processes set up in the system, certainly not a consequence of one condition upon another. He animadverts with apparent truth on what struck him in the observations of more than one experimentalist—viz., that these were based on methods in the reduction of alkalino-metallic solutions which could hardly fail to yield fallacious results.

THE POWERS OF COUNTY HEALTH OFFICERS.

AN important point has been raised by the Northallerton Local Board as to the power of the North Riding health officer to examine cases of suspected disease in their district in the absence of the medical officer of health of the district. Animated correspondence is already passing between the Local Board and the County Council. We refrain from comment on the matter, which will most likely be referred to the legal advisers of the Local Government Board for decision.

TERRITORIAL MONOPOLY OF QUALIFICATIONS.

WE are glad to notice that the territorial monopoly of qualifications has received a severe blow at Hastings. The rule of the Hastings Hospital has been altered, and now reads as follows:—"No person shall be elected to the office of physician or assistant physician unless he be a Fellow or Member *by examination* of the College of Physicians of London, *Edinburgh*, or *Dublin*, and be a Graduate in Medicine of one of the Universities of the United Kingdom, and be also duly registered under the Medical Acts." The italics represent the enlargement and liberality of the change made. We cannot go quite so far as Dr. Heath and say that the Medical Council, by doing its duty, shows the equality of their various examinations. The duty of the Medical Council is only to ascertain that the various examinations guarantee competency to practise. This does not necessarily involve fitness for hospital appointment, or equality of severity in the higher examinations in different divisions of the kingdom. The Medical Council is seriously defective in power and authority here. And the defect constitutes one great reason for some amendment of the Medical Acts; but, meantime, there is now no such ascertained inequality as to justify the monopoly of the London colleges, and it behoves all hospital authorities in the various divisions of the kingdom to act in the spirit of the Medical Act, and not argue, as one gentleman did, that men who have passed in Edinburgh and Dublin could not complain if, to gain an English appointment, they were called on to pass again in London.

BABY FARMING AT LINCOLN.

CERTAIN points connected with the history of a case of baby farming recently tried at the Lincoln police court are worth noting, if merely to remind us of the features most commonly characteristic of this form of crime. The child, which was illegitimate, had evidently died of starvation, not a particle of fat being found about the body at the post-mortem examination. It had been in the charge of two other persons prior to its arrival in the house where death occurred. The real significance of the word "starvation," as applied to such cases, may be noted. It need not here, as at a more advanced age, imply the want of food, since the mere mismanagement of this may easily be so contrived as to impoverish the system of the child while duly sparing the small sum allowed for its maintenance. The fact is familiar to most medical practitioners, and it is one which ought not to be overlooked. In the case already quoted conviction was obtained on the ground of failure to register on the arrival of the second of two nurse children. The authorities appear to have acted in the matter with commendable promptitude. We must, however, admit a degree of dissatisfaction that the practice of registration cannot as yet be carried out in still further detail than it is. It need not entail any meddlesome interference on the part of local authorities if even single nurse children are subject to registration. Their careful supervision would thus be better ensured, their transference from nurse to nurse rendered more easily traceable, and the farming system still practicable in their case exposed at its last remaining root. In conclusion, let us once more impress upon our readers an obligation incumbent upon all medical men—namely, that of refusing to certify, in the event of death, any cases which may be suspected of belonging to this class.

MIDWIVES REGISTRATION BILL.

THE Committee of the House of Commons on this Bill do not propose to hear more evidence, and will meet on Friday, June 17th, to consider their report.

THE SMALL-POX EPIDEMIC.

SMALL-POX continues to spread throughout the country in much the same proportion as has been the case recently. Some sixty cases a week are reported throughout the kingdom, of which the metropolis furnishes about a half, and Dewsbury and Batley the next largest proportion. There are signs of some recrudescence of the disease in these latter places, as well as in the Wakefield Rural District.

WATER POLLUTION IN THE RHONDDA VALLEY.

IT is alleged that the intake of the Ystrad Waterworks Company has been largely fouled by the entrance into the stream above the intake of a considerable amount of human and animal contamination from the Blaenrhondda Colliery levels. A representative section of the ratepayers in the district has requested the sanitary authority to institute legal proceedings against the Water Company unless the latter at once remove the intake to a point above the colliery levels.

A REMARKABLE VERDICT.

AN inquest was held at the Ordnance Arms, Chatham-extra, on June 4th, by Mr. W. H. Bell, LL.B., touching the death of a child aged seven months. The mother of the deceased deposed to its having been a sickly child, and that of late it had suffered from a bronchial affection. She consulted Dr. Jefferiss on several occasions, when he prescribed. Previously to the last visit some cough mixture obtained at a herbalist's had been administered. On this occasion Dr. Jefferiss noticed that the pupils were contracted, and he came to the conclusion that the symptoms were in part due to morphia poisoning. The wife of the herbalist admitted that she sold the mixture, and that it contained one drachm of chloroform and half a drachm of acetate of morphia to the gallon. The child had half a drachm of the syrup given to it, which would be equivalent to about $\frac{1}{7}$ grain of acetate morphia, a quantity certainly dangerous to an infant, especially when suffering from bronchitis. Dr. Jefferiss testified that the death was primarily due to morphia poisoning. The coroner's jury utterly ignored this, and returned a verdict of "Death from natural causes—viz., bronchitis." We are entirley at a loss to reconcile this verdict with the evidence. Surely there ought to be some means of preventing ignorant people from dealing in a deadly mixture which they seem to dispose of quite heedless of its dangerous nature.

SUCCESSFUL TREPHINING FOR TRAUMATIC EPILEPSY.

IN a recent number of the *Philadelphia Medical News* Dr. Binkley gives details of a case in which the removal of depressed bone from the skull in a case of traumatic epilepsy, some years after the injury, was followed by a most satisfactory result. The patient was a man thirty-seven years old, who had been struck on the head by a hatchet sixteen years ago. There was a good deal of exfoliation of dead bone some little time after the injury. The injury was four inches above the left orbital margin, over the prefrontal convolutions, and, beyond producing temporary unconsciousness, seems to have caused no symptoms, the man being able to resume work in a day or so. From this time, however, he began to suffer from epileptic fits (no detailed account of which unfortunately is given), at first occurring monthly, but becoming more frequent till during the four months preceding the operation he had from two to four fits every day. He was trephined over the site of the injury, and an area of depressed bone two inches in diameter was removed, the brain substance not being interfered with. The relief afforded seems to have been immediate and complete, and when the case was published, seven months after the operation, there had not been a single recurrence of the fits.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. von Coler, Surgeon-General of the Prussian Army, has been granted the title of Honorary Professor.—Professor Wilhelm Krause of Göttingen has settled in Berlin, and has been recognised as a *privat-docent*. Though he formerly taught morbid anatomy, he latterly confined himself to normal histology. His inaugural lecture had for its subject the Anthropology of Ireland.

Brussels.—The collection of apparatus, together with the library of the late M. Stas, has been purchased by M. Solvay, and presented to the University. The same donor has promised to build and equip laboratories for medical physics and physiological chemistry at a cost of 500,000 francs.

Freiburg.—Professor Hugo Muensterberg has obtained prolonged leave of absence in order to go to America and superintend the establishment of a psychological laboratory at Harvard University.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. L. A. Krohn, Lecturer on Surgery in Helsingfors, at the age of fifty-five. He was employed by the Prussians as surgeon during the Franco-German war, and during the Russo-Turkish war he acted as chief of the Finnish ambulance.—Dr. Lesser, Sanitary Councillor, of Obernigk.—Dr. Leff Konstantinovich Ivanovski of St. Petersburg. He was formerly prosector to Professor Landtsert, and at one time taught anatomy to the female students. Latterly he had devoted himself to military medical work, and had taken a great interest in anthropological archæology.

UNDER the provisions of the 8th Section of the Factory and Workshops Act, 1891, Mr. Matthews has certified that the "processes carried on in factories and workshops, or parts thereof, in the manufacture of lucifer matches, except such as are made with red or amorphous phosphorus, are injurious to health." The clause under which the Home Secretary has taken action provides that "where the Secretary of State certifies that in his opinion any machinery or process or particular description of manual labour used in a factory or workshop (other than a domestic workshop) is dangerous or injurious to health, the chief inspector may serve on the occupier of the factory or workshop a notice in writing, either proposing such special rules or requiring the adoption of such special measures as appear to the chief inspector to be reasonably practicable, and to meet the necessities of the case."

THE *Jewish Chronicle* of the 3rd inst. announces that Dr. Leopold Casper has been elected to the much-coveted position of a member of the Senate (consisting of twelve) of the Faculty of Medicine of the University of Berlin. "Dr. Casper," our contemporary states, "has attained considerable eminence in his profession, having studied in England under Sir Henry Thompson, in Vienna under Dittel, and in Paris under Guyon. In the years 1886 and 1887 he published two translations of the principal works of Sir Henry Thompson, and he has also written several original works. The election of the first Jew to the Senate is of importance in the face of a somewhat strong anti-Semitic feeling."

THE Sub-committee of Nursing and Hygiene in connexion with woman's work at the Chicago Exhibion will meet at 53, Berners-street, W., on Monday, June 13th, at 5 P.M., to consider the most suitable furniture for a general hospital ward, and will welcome any suggestions concerning the construction of hospital beds, bedding, and cots.

COUNSEL on behalf of Mr. T. R. Allinson moved, on June 3rd, before a Divisional Court of the Queen's Bench, for a rule calling upon the General Medical Council to show cause why an injunction should not issue to restrain the Council from removing Mr. Allinson's name from the Medical Register. A rule *nisi* was granted.

THE Russian Government has directed Dr. Lunkiewitz, the director of the Caucasian Military Medical Laboratory, to proceed to Afghanistan and the Trans-Caucasian territory to study the question of cholera.

THE annual dinner of the Army Medical Staff will be held in the Whitehall-rooms of the Hôtel Métropole at 7.30 P.M. on Monday, June 13th, 1892.

A TELEGRAM has been received at Berlin containing what purports to be confirmation of the rumour of the death of Emin Pasha.

CAMBRIDGE UNIVERSITY LONG VACATION.—The Professor of Pathology during the long vacation will lecture upon Elementary Pathology on Mondays, Wednesdays, and Fridays, at 9 A.M., and on Thursdays, at 10 A.M., beginning Friday, July 8th. In connexion with these lectures Dr. E. Lloyd Jones, Demonstrator of Pathology, will conduct a practical course in Morbid Anatomy and Histology, at 2.15 P.M., on Tuesdays and Thursdays, and at other times, to be arranged when the class meets. This course will begin on Tuesday, July 12th. The fee for lectures and practical work will be £3 3s., payable to Mr. Shipley at the New Museums. There will also be a complete course of lectures and practical work in Bacteriology, with special reference to the requirements of candidates for the diploma in Public Health, given by Mr. Adami, Mr. Kanthack, and Dr. Lloyd Jones. This will be held thrice weekly, beginning Friday, July 8th. The fee for this, including apparatus and the use of immersion lens, will be £6 6s. For fuller information concerning this course it is requested that application be made to Mr. Adami, Pathological Laboratory, New Museums. The accommodation will only suffice for a limited number of students.

THE INFLUENZA EPIDEMIC.

(*Concluded from p. 1267.*)

THE fifth section of the report is devoted to the general pathology of influenza, and is contributed by Dr. Hugo Ribbert. He commences with a description of the lesions so constantly met with in the respiratory tract. As regards the lungs, he points out that the forms of pneumonia which accompany or follow influenza are somewhat varied; often there is lobar pneumonia, in which the hepatisation has on section a peculiar smooth aspect, differing from the granular character of ordinary croupous pneumonia; or this condition may be commingled with areas of lobular hepatisation; or the latter alone may be present. Again, in some cases there is marked interstitial inflammation, a character which may account for the greater tendency to the supervention abscess and pulmonary gangrene observed in influenzal cases. Of course, pleurisy is a frequent concomitant; while pericarditis, and sometimes myocarditis, have been observed. Dr. Ribbert notes the enlargement of the spleen, upon which it may be remembered that some stress was laid (especially by Baumler) in the early history of this epidemic. There may be cloudy swelling of the kidneys or even glomerulo-nephritis. Cerebro-spinal meningitis and cerebral abscess have been met with. But the chief feature of the morbid anatomy of influenza is the inflammation of the respiratory organs, to which the main mortality is due. Brief reference is made at the close of the article to the discovery by Pfeiffer and Canon independently of a bacillus in the blood and bronchial secretion.

The symptomatology of influenza cases is described by three contributors. Dr. M. Litten deals with the symptoms of disorder of the circulation and respiration. The pulse, he says, is generally small, sometimes unduly slow, more often quickened, perhaps to an abnormal extent. In some cases there has been great cardiac weakness, terminating in sudden death from cardiac paralysis during the convalescent stage of the primary attack. Other patients have been liable to anginal attacks; whilst in some the symptoms of inflammation of the membranes of the heart and its wall have been manifest. In connexion with the tendency to cardiac asthenia, the records he gives of cases of thrombosis, venous and arterial, are of interest. The respiratory phenomena are dealt with fully. There is the frequent nasal catarrh—not perhaps so prominent a feature in this epidemic as in others on record—and associated therewith is the liability to epistaxis. Pharyngitis, tonsillitis, laryngitis, have all been observed. Bronchitis, with tendency to asthmatic seizures and sometimes croupous bronchitis, form a notable feature of influenza. As regards pneumonia, Dr. Litton thinks it was quite as prevalent as in former times, and calculates the proportion of influenza cases attacked with it to be as high as from 5 to 10 per cent. We should not have placed it so high as this. He notes the more sudden invasion of the croupous form as contrasted with the insidious onset of the equally common bronchial or catarrhal type, and states that the pneumonia was complicated frequently with pleurisy, and sometimes with pericarditis and meningitis. The pneumonia was frequently bilateral (especially the catarrhal form), or of a "wandering" type. Eleven cases are reported of "relapsing pneumonia;" eight cases of pulmonary abscess, and six of gangrene. The subjects of pulmonary phthisis were always made worse by an attack of influenza, which, doubtless, during its prevalence, added to the mortality from that disease. The derangements of digestion are described by Dr. L. Riess, who confines himself to a close analysis of the returns. Out of 3231 replies having reference to digestive symptoms only 275, or 8·5 per cent., give reliable answers; 6·8 per cent. allude to them as being of the nature of "dyspepsia;" 18·9 per cent. speak of "gastric catarrh;" 17·3 per cent. of "gastro-intestinal catarrh," and 7·2 per cent. simply of "intestinal catarrh." It is clear, therefore, that the majority refer the lesion to inflammatory disturbance analogous to that of the respiratory mucous membrane. It was observed that the gastro-intestinal disorders were more severe and complicated in South-west Germany than in North-east, where, although the number of cases was large, these affections were of milder type. Speaking generally, for the whole country the slighter disorders were very frequent, and about one-fourth were more severe, with varying predominance of special symptoms, as vomiting, diarrhœa, constipation, &c., and as to the duration of convalescence. It is clear that in one class the symptoms were almost purely gastric; in another gastro-intestinal. The symptoms of nervous type are analysed by Dr. W. Zülzer, who reports that 50 per cent. suffered from headache, and 27 per cent. from pains in the back, loins, limbs, and joints. Prostration is a constant feature. Vertigo occurred in 12·6 per cent.; insomnia in only 6 per cent.; delirium in 8 per cent. On the other hand, neuralgic affections, especially trigeminal neuralgia, were reported in 45 per cent. of the cases. Allusion is made to disorders of taste and smell, and a table is given of the rarer forms of nervous disease. Several articles follow on the complications and sequelæ of influenza. The first, by Dr. F. Stricker, reviews the whole subject, and shows by the aid of maps how the various affections for which influenza is responsible were distributed throughout Germany. Then follow articles on Pneumonia, by Dr. Litten; on Affections of the Larynx, by Dr. J. Lazarus; on Affections of the Eye, by Dr. Karl Horstmann; on Affections of the Ears, by Dr. A. Hartmann, who distinguishes two forms of influenzal otitis, one by direct extension from the nasal mucosa through the Eustachian tube, and the other of hæmatogenous (infective) origin. The same writer contributes an article on Affections of the Nose; whilst Dr. M. Jastrowitz writes on Mental Disorders. Under the general heading of "Course and Issue," there are two articles—one on Convalescence, by Dr. Paul Fürbringer, showing how in by far the majority recovery was rather slow than rapid; and one on the Causes of Death, by Dr. P. Guttmann. Out of 3625 returns, respiratory diseases are responsible for 68 per cent. of the fatal cases (and of these pneumonia was the chief), circulatory diseases for 13·3 per cent., digestive (gastro-intestinal) for 1·7 per cent., nervous for 6·4 per cent., acute infective diseases (influenza *per se*, typhoid fever, diphtheria, acute tuberculosis, pyæmia, septicæmia, puerperal fever, erysipelas) for 1·4 per cent., constitutional maladies (alcoholism, diabetes, leukæmia, pernicious anæmia) for 0·6 per cent., and a series of other affections (not classified) 8·0. All these are analysed under each Department and State of Germany, and form a valuable statistical summary.

The subject of treatment is dealt with by Dr. Paul Fürbringer. He says that the view that there is a specific remedy for influenza is only held by 2 per cent. of the reporters, whilst 200, or 6 per cent., term their treatment symptomatic or expectant, 400 advocate diaphoretic treatment, and 305 say that the essentials are warmth and rest in bed. A marked minority—viz., 123, or only 4 per cent.—advocate the use of cold; 1160, or 35 per cent., prescribed antipyrin; 606, or 18 per cent., quinine; 485, or 15 per cent, antifebrin; and 470, or 14 per cent., phenacetin. He finds that, whereas antipyrin was most in favour in Berlin, the Rhine provinces show a larger prescription of phenacetin; whilst in Saxony there was about an equal number of prescriptions of these two drugs. Salicylic acid and the salicylates were prescribed by 200; thallin hardly at all; calomel and iodide of potassium by a few. Cardiac tonics, sedatives, and alcohol were given by a considerable proportion, about 250 advocating a stimulant and restorative method by generous diet, gastric tonics, and alcohol as being especially useful in the convalescent stage. A few abstained wholly from the use of drugs, and found that confinement to the room during the attack and, for a week after it, was all-sufficient. A general summary of the remarks invited from the reporters is given by Dr. A. Hiller. The most interesting of these refers to the period of incubation of the disease. The majority place this between two and six days, the shortest being twelve hours given by Dr. Kockmann (Abenberg), the longest seventeen days, by Dr. Hennig (Leipsic). Some reporters explain the immunity enjoyed by certain people as being due to their comparative isolation—e.g., persons without families, the inmates of convents, &c. One writer thinks tobacco confers immunity. Some advocate the use of quinine as a prophylactic. In addition to these articles the volume contains, further, two

special articles—one on Influenza in Childhood, by Dr. Baginsky, and one on its occurrence in Prisons, by Dr. Baer. It is noteworthy that on an analysis of four prisons, having an average daily number of inmates equal to 1486, only 168, or 11·29 per cent., were attacked during the epidemic.

THE IMPERIAL INSTITUTE OF EXPERIMENTAL MEDICINE IN ST. PETERSBURG.

THIS institute owes its origin to the circumstance that an officer of the Imperial Guard was bitten by a rabid dog during the latter part of the year 1885; and also to the interest taken in the case by the commandant of the corps, Prince Alexander Petrovich of Oldenburg, who sent the officer to M. Pasteur in Paris, in order that he might undergo the treatment by inoculation, which was then just beginning to become known. The Prince also sent Dr. Kruglevski, with instructions to make himself familiar with the preventive treatment of rabies as practised by Pasteur; and he afterwards established at his own expense a laboratory in the veterinary infirmary of the Horse Guards. During the succeeding summer arrangements for the treatment were in full force. Two years later the Prince obtained from the Emperor authority to establish an Institute of Experimental Medicine, which should combine the functions of Pasteur's Institute in Paris with those of the Hygienic Institute of Berlin. It is not a mere collection of laboratories, but an organised series of departments, each of course in charge of an eminent professor, and the whole under a director who is responsible to the Prince himself, who is "curator." The grounds occupy 37,464 square metres, and are situated in the Aptekarski Island, a suburb of St. Petersburg. The principal building comprises sections for the anti-rabic treatment, for epizootology, for physiology, for chemistry, for general microbiology, for pathological anatomy, and for pathogenic microbiology, together with a lecture theatre, a library, and rooms for mechanical work and for small animals; another building is temporarily devoted to the chief of the section of syphilidology; a third building is occupied by animals of various kinds; a fourth is a kennel with thirty-two cages, four of which are intended for dogs suspected of having rabies; a fifth building is occupied by monkeys; a sixth is set apart for experiments on highly contagious diseases, such as glanders (this building consists of three isolated compartments, each having a special entrance); a seventh is intended for a human patient and his attendant, as it may sometimes be necessary to study the course of a disease in the human subject; an eighth building contains the hydraulic, electric, and other machinery. The illumination of the whole institute is carried out by means of 600 incandescent lamps, which are worked by two horizontal steam engines and two dynamos. There is, besides, an accumulator with a charge of 360 ampère-hours. The greatest care has been taken to prevent any contagion spreading outside, all solid matter, such as the dung and the litter of the animals, being burnt, and all the liquid sewage sterilised at 140° C., by means of an ingenious apparatus devised by Mr. Hanneken, the engineer, which is capable of sterilising fifty cubic metres in the twenty-four hours. The sewage from all sources is collected in a large iron reservoir, where the solid matter is separated by a special filter and afterwards burnt, the filtrate being passed through the sterilising apparatus before being allowed to flow into the town sewers. In addition to the buildings already mentioned, there are several others containing the apartments for the staff, also a chemical laboratory. A complete account of the institute and a plan constitute the first volume of the *Archives de Sciences Biologiques*, which has just appeared.

DOUBTFUL ECONOMY.—It is stated that the Devizes Urban Sanitary Authority has decided to abandon for the present an extension of the fever hospital, for which the Local Government Board had sanctioned an outlay of about £1200. The reason assigned for this decision is the heaviness of the present rates.

THE SO-CALLED VENEREAL DISEASES IN ANIMALS.

MUCH interest, from a comparative pathologist's point of view, attaches to these diseases of the domesticated animals, and especially to a syphiloid disorder affecting horses, which has for a considerable number of years attracted much attention and received a good deal of investigation.

A non-specific gonorrhœa is not unfrequently observed in the dog, in which there may be balanitis and posthitis, as well as urethritis, and which is sometimes troublesome to cure; but there is no evidence that it is communicable or productive of anything more than local lesions, though these are often very distressing to the animal. This condition is generally seen in pet dogs, though out-of-door animals—such as watch-dogs—are not exempt. It sometimes accompanies scabies, but is chiefly due to uncleanliness, over-feeding, and such-like causes. Urethritis is not uncommon in old rams, and is supposed to arise from over-copulation; it is at times so severe and persistent as to lead to stricture, but it does not seem to be very communicable to ewes. A similar disorder affects the bovine species, chiefly the male, and is known to those who have to deal with cattle as "bull-burnt." Its contagiousness has been denied by some authorities, though they admit that the acridity of the discharges will excite inflammation in mucous membranes with which they come in contact. But the majority of observers concur in the opinion that it is contagious, the contagium being very subtle. All the cows in a village may be contaminated by a diseased bull, and intermediate communication has been recorded, cows being infected by sponges that had been used to dress the affected bulls. In one instance a cow was the means of conveying the malady to nine others without the intervention of a diseased bull, contamination taking place by the affected animal rubbing against the healthy, and the continual whisking of the tail owing to the irritation in the vagina and urinary passages. The disease may attack the same animals several times; bulls have been known to receive the contagium from cows three times at short intervals. The symptoms in the cow are those of more or less acute vaginitis, with small vesicles or yellowish translucid pustules, the size of a grain of millet, studding the surface of the mucous membrane; this eruption is rapidly transformed into ulcers, when the exudate becomes purulent, the discharge being often rather copious. The ulcerations are frequently accompanied by local induration, their borders being irregular and thickened and their centre unhealthy looking. When they heal the cicatrices are whitish, smooth, and regular or stellate in shape. If there happens to be a sore in the vagina when infection occurs, then the case is more serious, as it may lead to sloughing of gangrenous patches. In rare cases the inflammation extends to the uterus and Fallopian tubes, and even beyond these. Slight fever is present in the majority of cases, and the appetite, rumination, and lacteal secretion are diminished. In exceptional instances pregnant cows abort, and frequently there remains a persistent vaginal catarrh. In the bull similar symptoms are noted; the urethritis causes frequent micturition, preceded and accompanied by violent expulsive efforts; phimosis is common; erection of the penis often causes the ulcers on it to bleed, and in exceptional cases gangrene occurs over a large surface. The animals become debilitated, while the appetite is diminished and rumination suspended. The disease runs its course in from eight to fifteen days, though it may occupy three or four weeks. In France it is known as the "éruption du coït" and "maladie aphteuse des organes génitaux," and in Germany as "Aphtherausschlag" and "gutartige Beschälkrankheit," to distinguish it from another venereal disorder to be noticed presently. It may continue for some months in the same cowshed.

A similar infectious exanthematous disease of the genital organs is observed in the equine species, and the symptoms do not differ much from those noticed in cattle; while it is spread in the same manner, though it is not so common. For instance, in Prussia, in 1884–85, it was reported as affecting 784 cattle, but only 75 horses; in the various provinces of Germany, in 1886, it attacked 3944 cattle and 248 horses; in Bavaria, in 1885, there were 455 of the former

and 9 of the latter; and in Würtemburg, 362 cattle and 13 horses were diseased. This frequency in the bovines, however, is only relative, and is due to cattle being more numerous than horses. The malady is usually spread by coition, and it may assume an epizootic form, as one diseased stallion can contaminate a large number of mares. It is said that one attack does not confer immunity from another, and it has also been stated that a stallion is capable of infecting several weeks after having been apparently cured. Foals have received the disease from the mares while sucking, the ocular, nasal, and buccal mucous membrane becoming affected. The period of incubation is from three to six days. In serious cases the inflammation may extend to the limbs, involving the lymphatic vessels and glands, and giving rise to abscesses and ulcerations in the neighbourhood of the mammæ, anus, and tail, with metritis, high fever, and general disturbance. Sometimes death ensues in these cases; and when it does not, recovery is very tedious.

French veterinary pathologists insist that this exanthematous disease of the generative organs in the bovine and equine species is horse-pox transmitted to the former; and certainly the clinical and experimental evidence produced in France supports that view; while the Germans, who appear to deny or overlook this evidence, themselves furnish what might be accepted as proof, for they show that the exanthem is sometimes communicated to people, and most frequently to those who attend to the animals. Inoculation usually occurs on the hands, and the German pathologists admit that it produces a varioliform eruption, with tumefaction of the whole arm, swelling of the axillary glands, and febrile disturbance.

But the most interesting, as it is the gravest, of the venereal disorders of animals, is that designated by the Germans the "Venerischekrankheit der Pferde, Chankerkrankheit, bösartige Beschälkrankheit, Lähmungskrankheit"; and by the French the "maladie du coït, maladie vénérienne des solipedes, maladie paralytique du cheval, épizoötie chancreuse," &c.; while by the Arabs it is designated "el dourine" (the unclean disease). It has also been described as the "lues venerea equina." It has only come into notice at a comparatively recent date, and was first described by the German veterinarian Ammon, who saw it at the Trakehnen breeding stud, in North Prussia, in 1796, affecting the mares and stallions. From 1801 it disappeared in Prussia, but extended northwards, causing much loss in Lithuania, and returned again to Trakehnen in 1807. Such is the early history of the malady; but it may be remarked that it was supposed to have been seen in Southern Russia before this period, and Renner mentions that it prevailed among the horses of the Imperial stud at Skopin, and in the governments of Kazan, Pottchinkoof, and Nischni Novgorod. In 1815 it was noted in Austria, and had spread into Hungary and Bohemia in 1821, in which countries it became extraordinarily prevalent in 1859 and 1862. Switzerland was visited by it in 1830, and it inflicted heavy losses in the studs; in 1836 it invaded Italy, and it was observed for certain in Russia in 1843. It was reported in 1847 in the province of Constantine, Algeria, by a French military veterinary surgeon, who described it as an "epizootic paraplegia that had appeared among the horses of the Rigas tribe." Not aware of the existence of the malady on the European Continent, he designated it by one of its chief symptoms, and casually mentioned that it had appeared in a serious form every fifteen or twenty years; in this visitation it destroyed 600 horses, and subsequently, among those of this and other tribes, it has caused great havoc. Soon after it was reported from Algeria it was discovered in Syria; in 1851 it revealed itself in France, among the brood mares in the plain of Tarbes, and was soon found to prevail in thirty-one communes containing 1874 mares, of which 127 were diseased, and of these 52 died. In 1852 it manifested itself in the Valley of Lourdes, and since that time has spread and destroyed many horses. Its advent in France was traced to the introduction of a stallion from Syria in 1851, and two others in 1861; and its perpetuation in the southern portions of that country was ascribed to the climate resembling that of Syria, where it nearly always prevails. The disease has not yet been witnessed in this country, Belgium, Spain, Denmark, Australasia, or India; but three years ago it was carried to the United States of America by imported Percheron stallions. It is a chronic infectious, or rather contagious, malady, at first localised in the genital mucous membrane, but becoming more or less rapidly generalised. Its average duration is from six to twelve months, but it may take two, three, and even four years to run its course; during this time it may almost disappear and recur repeatedly, the local symptoms becoming ameliorated and then subsiding as general infection is accomplished. The mortality is at least 70 per cent. of those affected, and a cure is only possible at the very commencement; even then there is no certainty of absolute recovery, as the malady may reappear in two or three years and terminate fatally. In 1886, of 26 stallions attacked with the "dourine" at Blidah, Algeria, 16 died, 4 were sold after castration, and 6 appeared to be temporarily relieved.

The malady is more particularly observed at the period when mares are put to the horse, and it is almost exclusively transmitted in copulation, the stallion being mainly instrumental in diffusing the contagium, the mares having a less share in this, though the male is always infected by them; but a diseased stallion will convey it to all the mares he is put to. Owing to its chronicity, it not unfrequently happens that affected animals are able to spread the contagion for more than a year. Professor Thanhoffer, of the Buda-Pesth Veterinary Institute, who has published an interesting work on the subject, states that the infecting agent is a micrococcus existing in the vaginal secretions, semen, spinal fluid, medullary roots of the sciatic nerves, and the blood. Hertwig found the disease to be transmissible by inoculation with the vaginal mucus; and in a paper read by Professor Nocard, of the Alfort Veterinary School, before the French Academy of Sciences on Jan. 25th last, it appears that this able pathologist has ascertained that the spinal cord is virulent, and he has also assured himself that it is inoculable in dogs. Several of these animals, into the anterior chambers of whose eyes he had injected a small quantity of nervous matter from a softened portion of the spinal cord of a horse that had succumbed to "dourine," died in from six to eleven weeks, after being paraplegic or monoplegic, and undergoing progressive emaciation to an advanced degree. He has also noted that the virulence is retained for a long time in spinal cords immersed in pure neutral glycerine. Roloff, Jessen, and some others believed the disease to be hereditary.

The symptomatology is interesting, the clinical features varying with the stage of the malady. At the commencement, and after an incubation of from eight days to two months, there is inflammation, and usually ulceration of the genital mucous membrane; and when the infection has become generalised the spinal cord becomes affected, this showing itself in paraplegia commencing in the dorsal region, with muscular wasting, until at last the animal cannot stand, but persistently maintains the recumbent position, and finally dies from hypostatic pneumonia, or septicæmia consecutive to extensive bedsores. Accompanying these symptoms there is a peculiar syphiloderma that merits notice. There is remarked on the surface of the skin, especially in the stallion, well-defined rounded patches from the size of a florin to that of a five-shilling piece, and projecting uniformly from a quarter to half an inch. This cutaneous vaso-neurosis is evidently due to infiltration into the papillæ of the derma in the spaces corresponding to the smaller cutaneous arterioles. The patches are frequently rapidly developed, and sometimes disappear as quickly; but in the majority of cases they persist for several weeks, gradually become denser, and are slow in going away. Their usual seat is on the croup, shoulders, chest, and abdomen.

Besides the lesions observed on the mucous membranes, Thanhoffer has remarked indications in the spinal cord of myelomycosis, central hæmorrhagic myelitis or a syringomyelitis, or localised degenerative processes. The cord is thinner at certain places, and on section it is found to be asymmetrical, softened, and studded with hæmorrhagic points; while the grey substance is atrophied and shows small patches of softening. The meninges of the cord and brain are altered, generally congested, and contain effusions; the brain substance is frequently œdematous, and the ventricles contain a larger quantity of serum than usual. The ganglionic cells are also altered in their bodies and nuclei, as well as the axis cylinder, the bloodvessels and the neuroglia, which is increased in quantity. There is enlargement of the lymphatic glands of the generative organs, and they are pigmented, and have caseous foci of various sizes. The mesenteric glands are also sometimes enlarged to the size of an apple; and the intermuscular

connective tissue and neurilemma of the large spinal nerves are the seat of a gelatiniform infiltration.

The origin of the malady is involved in obscurity. Some authorities have imagined it is human small-pox transmitted by syphilitic Arabs to the female ass, which communicates it to the male ass, and this in its turn conveys it to the female horse. The Arabs themselves believe it to be human syphilis, transmitted by diseased persons to mares with which they have intercourse, from a notion that this will free them from their disease. But there is no evidence whatever that the human disorder can be so transmitted to animals, and there are grave doubts as to whether it can be conveyed by inoculation. Though positive results are said to have been obtained by certain authorities with the monkey, rabbit, guinea-pig, cat, dog, horse, and pig, yet a series of experiments carefully performed by equally competent men on dogs, cats, cattle, pigs, mules, rabbits, and guinea-pigs have yielded only negative evidence. There is certainly no instance recorded of the so-called horse syphilis being communicated to man, and though between the two affections there are several points of resemblance, yet there can be no doubt that they are essentially distinct.

The same sanitary police measures are applicable to both; and it is a somewhat remarkable fact that in Germany, where the horse disease caused heavy losses, since the promulgation and strict enforcement of the law against contagious maladies in animals it has almost disappeared; indeed, for some years it has not been mentioned in the reports of the sanitary officers of that country.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6522 births and 3506 deaths were registered during the week ending June 4th. The annual rate of mortality in these towns, which had been 19·3 and 19·4 per 1000 in the preceding two weeks, declined last week to 17·9 In London the rate was 17·4 per 1000, while it averaged 18·4 in the thirty-two provincial towns. The lowest rates in these towns were 10·8 in Portsmouth, 11·8 in Croydon, 12·8 in Plymouth, and 12·9 in Gateshead; the highest rates were 21·9 in Liverpool, 24·2 in Halifax and in Manchester, and 25·9 in Burnley. The 3506 deaths included 455 which were referred to the principal zymotic diseases, against 469 and 478 in the preceding two weeks; of these, 189 resulted from measles, 106 from whooping-cough, 51 from diarrhœa, 48 from diphtheria, 32 from scarlet fever, 26 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases occurred last week in Croydon or in Norwich; in the other towns they caused the lowest death-rates in Bolton, Bradford, Wolverhampton, and Gateshead, and the highest rates in Sunderland, Manchester, Preston, and Halifax. The greatest mortality from measles occurred in Huddersfield, Manchester, Birmingham, London, and Halifax; from scarlet fever in Plymouth; from whooping-cough in Manchester, Salford, Swansea, Sheffield, Nottingham, Preston, Derby, and Sunderland; and from diarrhœa in Preston. The mortality from "fever" showed no marked excess in any of the large towns. The 48 deaths from diphtheria included 40 in London. Three fatal cases of small-pox were registered in London, but not one in any of the thirty-two large provincial towns; 89 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 11 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1820, against numbers increasing from 1226 to 1741 on the preceding ten Saturdays; 215 cases were admitted during the week, against 226 and 202 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London further declined to 240 last week, and were 41 below the corrected average. The causes of 73, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Oldham, Leeds, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Bristol, Birmingham, Norwich, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·5 and 22·1 per 1000 in the preceding two weeks, declined again to 20·2 during the week ending June 4th, and exceeded by 2·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·1 in Aberdeen and 14·1 in Leith to 22·3 in Perth and 23·9 in Glasgow. The 563 deaths in these towns included 34 which were referred to measles, 20 to whooping-cough, 11 to diarrhœa, 7 to scarlet fever, 3 to diphtheria, 1 to "fever," and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 78 and 80 in the preceding two weeks. These 76 deaths were equal to an annual rate of 2·7 per 1000, which exceeded by 0·4 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 32 in each of the preceding three weeks, rose to 34 last week, of which 31 occurred in Glasgow. The deaths referred to whooping-cough, which had been 26 and 25 in the preceding two weeks, further declined to 20 last week, and included 15 in Glasgow and 3 in Edinburgh. The 11 fatal cases of diarrhœa showed a further increase upon recent weekly numbers. The 7 deaths from scarlet fever exceeded by 2 the number recorded in the preceding week, and included 5 in Glasgow. The 3 fatal cases of diphtheria corresponded with the number in the previous week, and included 2 in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 140 to 120 in the preceding three weeks, were 123 last week, and 19 below the number in the corresponding week of last year. The causes of 67, or nearly 12 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 34·6 and 29·1 per 1000 in the preceding two weeks, further declined to 28·6 during the week ending June 4th. During the first nine weeks of the current quarter the death-rate in the city averaged 33·3 per 1000, against 19·7 in London and 18·7 in Edinburgh. The 192 deaths in Dublin during the week under notice showed a decline of 3 from the number in the preceding week, and included 21 which were referred to measles, 3 to whooping-cough, 3 to "fever," 1 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. In all, 28 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·2 per 1000, the zymotic death-rate during the same period being 3·0 in London and 1·4 in Edinburgh. The fatal cases of measles, which had been 28 and 23 in the preceding two weeks, further declined to 21 last week. The deaths referred to different forms of "fever," which had been 1 and 4 in the preceding two weeks, were 3 last week. The fatal cases of whooping-cough, which had been 3 and 6 in the previous two weeks, declined again to 3 last week. The 192 deaths registered in Dublin last week included 36 of infants under one year of age, and 46 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded the numbers recorded in the preceding week. Nine inquest cases and 5 deaths from violence were registered; and as many as 73, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

DR. MATTHEW KANE, Deputy-Inspector-General of Hospitals, Madras Army (Retired List), died on the 27th ult., at the residence of his son-in-law, 147, Newport-road, Cardiff.

MEDICAL OFFICERS IN WAR.

We called attention some time ago to the gallantry o Surgeon-Captain Melville, of the Indian Medical Service, during the revolt in North Lushai, and the circumstance

serves to prove that the application of the term "non-combatant" to medical officers is entirely misleading. A medical officer has to take his part with the rest of the expedition of which he forms a part. He is subjected to all the risks and dangers of any fighting just like other officers, and when an engagement is over for other officers his responsibility and work only begin again. The every-day occurrences of military life in the field show that such distinctions cannot be drawn.

ARMY MEDICAL STAFF.

Surgeon-Captain H. E. Deane has taken over the charge of the Hospital for Soldiers' Wives and Children at Aldershot; Surgeon-Lieutenants E. M. Pitcher and E. M. Morphew have been appointed to the Cambridge Hospital, Aldershot; Surgeon-Lieutenant J. F. M. Kelly to the Second Station Hospital, Aldershot; Surgeon-Lieutenants G. S. Crawford and H. P. Johnson to the Third Station Hospital, Aldershot.—Surgeon-Captain C. R. Tyrell has been appointed Assistant Instructor at the Depôt and Training School, Aldershot.—Brigade-Surgeon-Lieutenant-Colonel Charles Stratherne Close is placed on retired pay (dated May 29th, 1892).

YEOMANRY CAVALRY.—Middlesex (the Duke of Cambridge's Hussars): Surgeon-Lieutenant William Duncan, M.D., to be appointed Captain (dated June 4th, 1892).

INDIAN MEDICAL SERVICE.

Surgeon-Major Salaman, Superintendent, Yerrowda Central Gaol, will, it is understood, officiate as Inspector-General of Prisons, Bombay, for three months, during the absence of Mr. Filgate, who goes on leave from the 21st inst.

Brigade-Surgeon-Lieutenant-Colonel George Bainbridge, M.D., I.M.S., has been appointed Honorary Surgeon, Sind Volunteer Rifle Corps.

The services of Surgeon-Captain T. D. C Barry, I.M.S., have been placed at the disposal of Government for permanent employment in the Civil Department.

The services of Surgeon-Captain T. E. Dyson, M.B., I.M.S., have been placed permanently at the disposal of Government for employment in the Civil Department.

Government of India Orders.—Medical: With effect from the date on which Brigade-Surgeon-Lieutenant Colonel K. McLeod, M.D., retired from the Service, Brigade-Surgeon-Lieutenant-Colonel D. O'C. Raye, M.D., is appointed Professor of Surgery, Medical College, Calcutta, and *ex officio* First Surgeon to the College Hospital.—Surgeon-Lieutenant-Colonel J. O'Brien, M.D., Civil Surgeon, Darjeeling, is appointed Professor of Surgical and Descriptive Anatomy, Medical College, Calcutta, and *ex-officio* Second Surgeon to the College Hospital, vice Brigade-Surgeon-Lieutenant Colonel D. O'C. Raye.—Surgeon-Captain J. Scott, M.B., 6th Infantry, Hyderabad Contingent, is granted leave in India (p a) for forty-two days.—Surgeon-Major E. S. Brander, Civil Surgeon, Etawah, is appointed to officiate as Superintendent, Central Prison, Bareilly, during the absence on deputation of Surgeon-Major E. Mair.—Surgeon-Captain H. J. Pocock, M.S, is appointed to the civil medical charge of Roorkee, in addition to his military duties, from the date of taking charge and during the absence on leave of Surgeon-Major J. Young, I.M.S.—Surgeon-Captain L. G. Fischer, Civil Surgeon, Manipuri, is appointed to hold visiting medical charge of the Etah District, in addition to his own duties, during the absence on privilege leave of Surgeon-Captain H. E. Drake-Brookman.—Mr. H. R. Warner is appointed to officiate as Assistant District Superintendent of Police, and to be posted to the Lucknow District.—Surgeon-Major J. Anderson, Civil Surgeon, Bareilly, is appointed to be in visiting medical charge of the Pilibhit District from March 27th, 1892.—Surgeon-Major H. Seymour, M.B., of the Medical Staff, is appointed to hold charge of the civil medical duties of Moradabad, in addition to his military duties, during the absence on furlough in India of Surgeon-Major P. J. Freyer, Civil Surgeon.

Ghazipur Volunteer Rifle Corps.—Honorary Surgeon J. H. Maclaren, M.B, I.M.S., is granted twelve months' leave of absence, on private affairs out of India, from April 23rd, 1892.

Surgeon-General Rice, who has recently been granted an extension of office, will probably proceed on leave shortly, in which case Deputy-Surgeon-General Richardson will officiate for him.

Surgeon-Colonel F. W. Wade, Administrative Medical Officer, Allahabad, has been granted sixty days' privilege leave.

Surgeon Major Robertson acts as British Agent during Colonel Durand's visit to India.

Surgeon-Captain F. P. Maynard is appointed to officiate as Civil Surgeon of Burdwan during the absence, on furlough, of Surgeon-Major G. Price, or until further orders.

Surgeon-Captain Narendra Prasunna Sinha, Civil Surgeon of Faridpur, is allowed leave for one month and fifteen days, under Art. 291 of the Civil Service Regulations, from May 15th, 1892, or such subsequent date as he may avail himself of it.

Surgeon-Captain W. J. Buchanan is appointed to officiate as Civil Surgeon of Midnapur, during the absence, on deputation, of Surgeon-Major A. Tomes, or until further orders.

Surgeon-Major P. J. Freyer, M.D., Civil Surgeon, Moradabad, furlough in India for twenty months, from May 10th, 1892.

Honorary Surgeon A. R. W. Sedgefield, M.B., I.M.S., is granted twelve months' leave of absence, on private affairs out of India, from April 30th, 1892, or subsequent date.

NAVAL MEDICAL SERVICE.

Until the beginning of last year, when a ship with a post-captain or senior commander was commissioned, a staff surgeon was appointed; and failing that, or if through death or invaliding a vacancy occurred, the surgeon appointed received the acting rating, and pay of the higher rank. This was an equitable arrangement, as he had heavier duties to perform and had charge of more valuable stores, the loss of which would be made good out of his pay. It has lately been the custom, however, to appoint a surgeon to a post-captain's command in lieu of a staff surgeon. There are a number of surgeons on the list holding these positions, and doing the heavier work, for which they receive no extra pay. We are given to understand that a circular has been received from the Admiralty ordering surgeons in future to be considered as part complement of commanders' and of nearly all captains' commands, by which acting vacancies will be done away with. As acting vacancies are the rule in other branches of the service we do not see why medical officers should be put upon a different footing.

The undermentioned Fleet Surgeons have been promoted to the rank of Deputy-Inspector-General of Hospitals and Fleets in Her Majesty's Fleet:—James William Fisher, M.D., and Thomas Henry Knott (both dated May 30th, 1892).

VOLUNTEER CORPS.—2nd Volunteer Battalion, the East Surrey Regiment: Brigade-Surgeon-Lieutenant-Colonel E. Pocklington is made Supernumerary in place of being seconded (dated June 4th, 1892).—2nd Volunteer Battalion, the Loyal North Lancashire Regiment: Surgeon-Captain A. Kershaw resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated May 24th, 1892); Surgeon-Lieutenant J. F. Scowcroft, M.D., to be Surgeon-Captain (dated May 24th, 1892).—2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Mowbray Taylor, M.B., to be Surgeon-Lieutenant (dated June 4th, 1892).

IRISH MEDICAL ASSOCIATION. — The following office-bearers have been elected for the ensuing year:—President: David R. Jacob. Vice-Presidents: G. E Greene, W. W. Leeper, Thomas Hayes, Richard O'Kelly. General Council: Sir J. T. Banks, Arthur Benson, R. Browne, Sir Charles Cameron, H. Chapman, F. Davys, J. Delahoyde, N. Falkiner, F. C. Fitzgerald, Kendal Franks, J. Gray, E. Hamilton, W. J. Hepburn, A. H. Jacob, Dillon Kelly, W. G Jacob, R J. Kinkead, R. Leeper, Austin Meldon, H. Minchin, J. A. MacCullagh, P. J. Macnamara, George Mackesy, H. Oulton, J. R. Philips, John Ringwood, P. C. Smyly, Sir William Stokes, W. T. Stoker, and W. J. Wheeler.

PRESENTATION.—The officers of the Holborn Union Workhouse, on May 30th, presented Mr. Oscar B. Shelswell with a handsome silver egg-stand as a mark of respect and esteem on the occasion of his marriage.

Correspondence.

"Audi alteram partem."

THE ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—With Mr. Lawson Tait's conduct towards the Association of Fellows, I, as a member, have little concern. I have already stated what the "circumstances" were to which Mr. Tait still mysteriously alludes as his reason for deserting his colleagues in both Associations, and apparently neither the Fellows nor the Members can see in them any justification for the course which he has taken. I desire, however, to protest against Mr. Tait's assertion that "the fight for the Members' rights has become perfectly hopeless." That it was so while conducted on the lines dictated by him I fully admit; I admit, further, that his interposition has probably delayed the realisation of the Members' aims for several years, but that the present generation will see an entire change in the mode of government of the College I no more doubt than that the sun will rise to-morrow. Mr. Tait has passed as a disturbing influence across the path of College reform, which will, I trust, now return to its proper orbit.—I remain, Sirs, faithfully yours,

June 6th, 1892. W. G. DICKINSON.

DEATHS UNDER ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—I forward you an account of a case of death under an anæsthetic.

L. W——, a well-developed and healthy woman, aged thirty-five, applied to me in March last suffering from chronic sinuses in right axilla, following an abscess about eighteen months ago. I sent her to Evesham Cottage Hospital, where she was given A.C.E. mixture by my brother, Mr. Frank Gilpin, M.R.C.S., and without any abnormal symptoms she remained under it from twenty minutes to half an hour, while I opened up and scraped out eight large sinuses, these afterwards healing well. She was discharged at the end of the third week practically cured, with the exception of a small surface about a quarter of an inch long, which cicatrized over in about a fortnight from her discharge. About the middle of May she again applied to me, with this last-named spot broken down, and, after dressing it for ten days or so, on May 29th I again advised her to go into hospital for a few days, and ordered her admittance before 12 o'clock. But on the 30th I found the woman in a most excited state, and the matron informed me she had not appeared until 9.30 P.M., decidedly the worse for drink, having been detained at a police-station. I declined to do anything until the next day, May 31st. On my arrival I found her quite composed and most anxious to get the operation over. About 12 o'clock the matron and nurse had the patient ready (she had had her breakfast soon after 8 o'clock). I did not consider an anæsthetic necessary, but at the last moment yielded to her express wish that I should give her some. Her pulse was 72, regular and of fair tension. I used the flannel inhaler (after Middlesex Hospital pattern), A C E. mixture in a two-ounce glass-stoppered bottle, which I had freshly opened the day before to give another case some for purpose of abdominal examination. She was slightly excited at first, and soon showed some signs of faintness, when I got the matron to give a hypodermic injection of about one drachm of brandy, but within a minute or so she became slightly cyanosed and her respiration became irregular. I stopped, and injected half a drachm of ether, when she seemed better, but within another minute she seemed to get worse. I immediately commenced artificial respiration, the patient's tongue being kept well out of her mouth with tongue forceps. As she did not improve, I ordered hot fomentations over the præcordia and two more hypodermic injections of ether in the same region, and sent for Mr. J. S. Slater, M.R.C.S., he being the nearest medical man, who kindly came in about ten minutes or so; but on his arrival the patient was practically pulseless and the heart sounds were scarcely audible. We performed the artificial respiration for some five minutes or so longer, but found she was then dead, I having kept the artificial respiration going for just half an hour. I had no galvanic battery at hand. At my request the coroner ordered a post-mortem examination by Mr. Slater. We found the lungs hypostatically congested with a few scattered old adhesions. The pericardium was markedly adherent, especially in front. The heart was of average size, slightly dilated; the muscular walls of the left ventricle were flabby; the valves were normal. Liver and kidneys seemed healthy. As to the cause of death, I would suggest whether the excited state of the woman's mind the few days previously, she turning out to be a known chronic alcoholic, together with the state of heart and pericardium, would not sufficiently account for it.

I am, Sirs, yours faithfully,

R. HARRISON GILPIN, L.R.C.P. &c.

Evesham, June 7th, 1892.

To the Editors of THE LANCET.

SIRS,—The following are notes of a case of death under chloroform:—

The patient, a boy aged twelve years, was admitted into hospital, March 15th, with a large psoas abscess (right). Two days later this was opened and explored under chloroform, which the patient took well. A few days after this he had signs of pneumothorax, and later hydrothorax, of left chest. This was aspirated, and after a few days the chest signs began to clear up and his general condition improved. For the next six weeks he went on in much the same condition, with discharging sinus in the right groin, but health improving a little. At the end of this time—i.e., May—a large abscess had formed over the right sacro-iliac joint, and was about to be opened when death occurred. The chest had been examined every week, and the following was the condition of lungs and heart a few days previously to May 27th:—Heart: Impulse in fifth space close in to left edge of sternum. Both sounds normal; no bruits heard. Pulse usually about 85. Lungs: Dulness at left base behind from eighth rib downwards, with impaired voice and breath sounds and loss of tactile fremitus. He had been prepared for the anæsthetic, and had only had a little milk and bread four and a half hours previously. The following is the report of the assistant house surgeon, who acts as anæsthetist to the hospital, and was administering chloroform when the death occurred:—"It was administered on a piece of lint (doubled) held in front of the face. Patient was not at all nervous. Administration had been continued for between two and three minutes, when the respiration, which had been regular but shallow, became deeper. About three such had been taken when breathing ceased suddenly. The pulse was found to be imperceptible at the wrist, and the corneal reflex gone, and pupils widely dilated. Artificial respiration (Sylvester's method) was commenced at once. Two inspiratory gasps only were taken. Hypodermic injections of ether, hot sponges to præcordium, raising extremities, and galvanic current to heart were all tried without success, artificial respiration being kept up for half an hour. Altogether one drachm of chloroform had been given." A post-mortem examination was made the following day. Below are the notes. Lungs: Right quite healthy; left, upper lobe healthy, lower carnified. There was an empyema on this side which contained about sixteen ounces of pus. The heart was lying rather more to the right side than normal. The muscles and valves were healthy.

I am, Sirs, yours faithfully,

NORTON CLOWES, House Surgeon.

Reading, June 7th, 1892.

"STEELE *v.* SAVORY" FUND.

To the Editors of THE LANCET.

SIRS,—Dr. Danford Thomas's appeal in your last week's issue will, I feel sure, commend itself to the Members of the College of Surgeons, and provide at once the necessary funds to defray the costs, amounting to £2000, in the above action. Up to the present date £800 has been received; £600 of this has been subscribed by the twelve members of the committee, an average of £50 each. I feel confident the Members of the College will not allow these gentlemen to be saddled in this manner. The Council of the College would not abate their costs one farthing, and like Shylock

determined to have the pound of flesh, and distrain if necessary on the goods of the four plaintiffs. I hope that the Members will at once respond to Dr. Thomas's appeal, not only to pay the £2000 owing for costs, but also to place the Association on a strong footing, so that Parliamentary action may be taken to secure for the Members that reform in the management of the College affairs which I feel confident they all desire. Subscriptions, however small, will be thankfully received by Dr. D. Thomas, Park Lodge, Paddington.—I am, Sirs, yours faithfully,

JOSEPH SMITH,
Vice President, Association of Members of the Royal College of Surgeons.

June, 1892.

RHEUMATOID ARTHRITIS AND RHEUMATIC ARTHRITIS.

To the Editors of THE LANCET.

SIRS,—I have just read, in the account of the meeting of the Royal Medical and Chirurgical Society, held on May 24th, the report of Mr. Hugh Lane's paper on the above subject, and there are some points with regard to it about which I should like to be allowed to make a few remarks. Not having been present at the meeting, I must consequently depend upon the necessarily somewhat abridged report in the medical press. If, therefore, I should put words into Mr. Lane's mouth which he did not make use of, I hope that he will forgive me, and recognise the cause of my error. Now, in the first place, speaking of rheumatoid arthritis, Mr. Lane says that "it is a constitutional disease of debility, invariably having a history of phthisis or gout, or both." Apparently he holds that it is a tubercular disease, and the obvious question which indeed was asked was, "Has Mr. Lane ever demonstrated the presence of the tubercle bacillus?" Unfortunately the answer to this question was not reported, which is a pity; for it would be interesting to know, first, if the bacillus has been found in those cases in which there is a marked tuberculous history; secondly, whether it is present in other cases; and finally, what method of staining Mr. Lane finds most convenient. In my own experience at the Mineral Water Hospital I find that in this mysterious disease there is a family history of phthisis in a large number of cases; but I also find that there is a still larger class in which it is absent, and "invariably" is hardly the word which one would use to express the frequency of the connexion between the two. If Mr. Lane maintains that a history of phthisis or gout is invariably present, of course he would not recognise any cases in which such a history was absent as being rheumatoid arthritis. What will he call these, and where will he class them? A history of phthisis is probably found as frequently as it is in rheumatoid arthritis by virtue of the fact that it is a debilitating disease, and a very common one, and, moreover, one in which the debilitating influence is transmitted to the offspring; but beyond this I do not believe that there is any relation between the two. There are other causes which predispose to rheumatoid arthritis, as Mr. Lane allows, but there is one of considerable importance which he does not recognise, and this is acute rheumatism. I certainly think that this disease should be given greater prominence as a predisposing cause; for there are a large number of cases of rheumatoid arthritis where the symptoms have started from an attack of rheumatic fever, and I hope before long to be able to show in a tabulated form my grounds for this statement.

Next, with regard to differentiation. In rheumatoid arthritis Mr. Lane finds that the reflexes are normal or subnormal, whilst they are increased in rheumatic arthritis, "especially late in the disease." Now, it would seem, on the face of it, more probable that they would be absent in rheumatic arthritis "late in the disease," when, to use Mr. Lane's own words, "the resulting ankylosis is very firm." I have especially noticed the point of the reflexes for a long time, and I am quite certain of this: that, as a general rule, in rheumatoid arthritis they are distinctly increased, and that it is the exception for them to be subnormal. I quite agree with Mr. Lane in saying that rheumatoid arthritis is a disease of all ages; but it is rather comic that he should emphasise the point that in chronic rheumatic arthritis the young seldom suffer. There is one thing more. As a minor point in the differentiation, Mr. Lane says that "anti-rheumatic treatment never did any good" in cases of rheumatoid arthritis. In my own experience, I find that in this disease the patient is liable to frequent attacks, accompanied by increased pain and swelling of the affected joints. Under these circumstances salicylate of soda is of great benefit, both for reducing the temperature and also relieving the joint troubles. But the fact that a case was benefited by salicylates would, of course, cause Mr. Lane to cease to recognise it as rheumatoid arthritis; it would be removed from the category of that disease, and, like others that have already been mentioned, would have to seek shelter in the class of the unknown. In conclusion, I trust that Mr. Lane will excuse my differing from him on a few somewhat important points; and I hope that he will believe that I am approaching this subject from a purely scientific standpoint.—I am, Sirs, your obedient servant,

PRESTON KING, M.D. Cantab.,
Resident Medical Officer, Royal Mineral Water Hospital, Bath.

May 30th, 1892.

REGISTRATION OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—The following are a few of the reasons against the establishment of an order of "registered midwives":—1. All women *bonâ fide* practising at present must be admitted to the Register at commencement; hence no good can result for many years. 2. No women who choose to act as midwives can be prevented from doing so because not on the Register, provided they omit the word "midwife" from their cards or plates. 3. Any registered midwife would be able, if she think fit, to abstain from calling in medical aid in all cases; because, being legally qualified to attend "ordinary cases" without such aid, it would be practically impossible to decide where self-confidence begins to be culpable. 4. Experience proves that the education required of medical practitioners is too little always to ensure competent obstetric practice, and hence any lower standard of training is greatly to be condemned. 5. Obstetric practice, when in the hands of midwives alone, was unscientific in character and horrible in its results; and the establishment by law of a profession of midwives will hinder the gradual disappearance of a class dangerous to the community. 6. The establishment of a register will lower to an utterly insufficient minimum the training regarded necessary for competent obstetric nurses, and will thus render a lower standard prevalent generally. 7. The establishing of a new register conferring legal privileges and powers on those so registered will be unjust to those already entered on the registers of the British Nurses' Association and other bodies, which require a very high standard of training, and restrict the practice of those registered to the proper duties of nurses, acting under medical supervision. 8. The giving of legal sanction to the untrue and dangerous doctrine, that a very moderate amount of skill and training are sufficient for the due management of parturition, will lead to neglect in providing properly against the sudden, insidious, and frequent dangers which plunge so many homes in mourning. 9. The elevation of ignorant midwives into the position of "obstetric practitioners" will cause the obstetric art to be regarded with contempt, and lead to its neglect by the more highly educated members of the medical profession. 10. Every woman can at present obtain the skilled attendance of qualified medical practitioners at rates no higher than the wages of competent midwives, and hence there is no need for the less skilled attendants. 11. The demand for registration of midwives comes entirely from a number of West-end consultants and nurses whose knowledge of general practice is small, and whose motives are obviously not entirely disinterested; while there is no demand for it on the part of the public. 12. The mass of the medical profession (who are the best judges in the matter) regard the proposal as retrograde and dangerous to the public health, and they view the suggested legislation with the utmost abhorrence.

I am, Sirs, yours faithfully,

HUGH WOODS,
Master of Obstetric Art (Dublin).

June, 1892.

EXCISION OF CANCER HIGH UP THE RECTUM.

To the Editors of THE LANCET.

SIRS,—In your issue of the 4th instant Mr. W. H. Brown details an operation for the above purpose, in which the

sacrum was sawn through at the level of its fourth vertebra. While congratulating Mr. Brown on his success, I cannot help thinking that as good a result might have been attained, without the preliminary formation of an artificial anus, by a much more simple procedure, involving neither shock nor troublesome hæmorrhage. When a malignant growth is found beyond the reach of an ordinary proctectomy, yet freely movable, a posterior incision from the margin of the anus to the tip of the coccyx should be made through the sphincter. Free access being thus gained, the tumour should be dragged down, encircled by the wire loop of the galvanic écraseur, and removed. Two cases successfully treated in this way have been already reported.[1] In neither has there been recurrence; one patient, an old lady, now over eighty, and in the best of health, had a considerable mass of pendulous fungous growth, seemingly higher up than in Mr. Brown's case, as the upper limit could not be touched except under anæsthesia. Such heroic measures as resection of the sacrum or coccyx are rarely admissible in persons enfeebled by malignant disease; and, even if temporarily successful, are still more rarely productive of any benefit commensurate to the attendant risks.

I am, Sirs, your obedient servant,

Gloucester-place, W., June 7th, 1892. HERBERT SNOW.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Midwives' Bill.

ALLUSION has been made in a previous letter to the efforts towards improving the status and education of midwives in this city ever since the institution of the Ladies' Charity nearly a century ago. It was even then at least a step in the right direction, the midwives attached to the Charity being educated in their duties, subject to the supervision of the surgeons, and liable to dismissal, with the loss of what was to them a considerable income, if they were guilty of any serious neglect. More recently still greater efforts have been made in the way of improvement and by the amalgamation of the old Ladies' Charity with the Lying-in Hospital the value of each of these kindred institutions has been greatly enhanced. The fusion took place in 1869, since which date a new lying-in hospital has been erected, having all the most recent improvements, with every means for securing, so far as is possible, the perfect recovery of each patient. The candidates, after being duly educated, commence their duties as midwives should they have proved themselves worthy of the trust under proper supervision. I consider that nothing can be more reasonable or praiseworthy than this endeavour to raise the midwives of the present day to the same level, so far as practicable under the different circumstances, as that of the hospital nurses, and with much success. That no woman should be allowed to practise as a midwife for gain unless she shall have been trained in her duties under competent medical supervision is too reasonable to be seriously disputed.

The Assizes.

The only case of murder tried at the May Assizes, before Mr. Justice Cave, was that of a married woman who strangled her two children. It was proved by the evidence of Dr. Wiglesworth, of the County Asylum, Rainhill, that the unfortunate prisoner was of unsound mind at the time and not responsible for her act. She was therefore ordered to be detained till Her Majesty's pleasure should be known. There were also some cases of severe wounding and of brutal violence, for which very severe sentences were awarded.

A Coroner on the Removal of Bodies.

An inquest was held on the 4th inst. by Mr. Smith, the coroner for the Manor of Prescot, upon the body of a miner who had been killed by a fall of roof which had been found to be properly timbered shortly before its fall. The manager was rebuked by the coroner for removing the body from the district of the coroner in which the accident occurred into that of another coroner. It was a proceeding not only attended with much inconvenience, but it was also very unfeeling to send the body home without any previous intimation to his widow. Under the Coroner's Act, 1887, the coroner within whose district the body is lying must hold the inquest.

Whit Monday Bank Holiday.

The glorious weather has made this year's Whit Monday an ideal Bank Holiday. Some notion of the advantage taken of it may be gathered from the fact that close upon 170,000 passengers were in the course of the day conveyed across the four Mersey ferries—Birkenhead, Seacombe, Egremont, and New Brighton. Not one single accident is recorded, a fact most creditable to the management of the ferries, which indeed is most excellent all the year round, but especially on such occasions as Bank Holidays &c. The traffic by the Mersey Railway, the Lancashire and Yorkshire, Cheshire lines, and London and North-Western was very heavy, but no accidents are reported.

St. James's Cemetery.

A visit is to be made to this cemetery on Saturday next, the 11th inst., by Dr. Hoffman, the medical inspector of the Burial Acts Department of the Home Office. The cemetery is situated in the centre of the city, and is surrounded on all sides by dwelling-houses. Complaints have been made sometimes of unpleasant odours, more frequently of the lugubrious sight of hearses, mourning coaches, &c., appearing there, when, in the opinion of some residents, they should all be relegated to cemeteries outside the city. Both those who wish to have the cemetery closed and those who wish to see it still used will have an opportunity of stating their respective cases on Saturday. The cemetery occupies eleven acres of ground and the interments number upwards of 45,000.

June 8th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Model Dwellings for Labourers.

A LARGE block of model dwellings for labourers was opened on May 30th in Ancoats. The block had been made by reconstructing an old mill, and about 150 tenements have been arranged in the building, and at the time of opening the great majority of these were already occupied. The building has been undertaken by a private society, the Manchester Labourers' Dwellings Company, and, so far as can be judged from the opening success of a new attempt in this direction, the efforts of the company are appreciated by those whose condition it seeks to benefit. Among the promoters of the scheme are a number of influential citizens, and many people interested in the matter attended the opening ceremony. It was stated by the chairman that this was the first of the company's undertakings, and that they hoped to complete many more buildings of the kind. The tenements will be let at rates yielding a moderate interest on the capital expended, and the company will thus be self-supporting. In subsequent speeches by the mayor and the chairman of the sanitary committee of the corporation, it was stated that the corporation would help as much as possible the efforts of the company, and would welcome the latter as purchasers of suitable land at moderate prices rather than themselves erect labourers' dwellings. Incidentally the great amount of useful work done by the sanitary committee in closing and ordering repairs and alterations to be made in unhealthy houses was pointed out. Manchester is very scantily supplied with tenement houses of this sort, and everyone taking an interest in the improvement of the housing of the labouring classes must heartily congratulate the Labourers' Dwellings Company on the spirit of their enterprise and on their manner of carrying out their first work.

Baths.

A new public bath—the fourth belonging to the Salford Corporation—was opened last week. The number of persons using these baths is very great, but nevertheless a slight pecuniary loss in working them results, and this has to be recouped out of the rates.

New Fever Hospital for Salford.

Next week there will be opened a new fever hospital for the borough of Salford. The old "Wilton" hospital has been found insufficient for the requirements of the town,

[1] Brit. Med. Jour., Oct. 11th, 1890.

and was, moreover, situated in a densely populated neighbourhood. The new one is near Eccles, surrounded by plenty of open space, and will have accommodation for about 100 patients, which is calculated to be sufficient for all reasonable needs of the borough.

Manchester, June 8th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

North Shields and Tynemouth Dispensary.

THE annual meeting—the ninetieth—of the North Shields and Tynemouth Dispensary has been held. The number of patients admitted by ticket was 966, being a considerable increase; the number of casual patients was 6758, showing the large increase of 2663. This, it was pointed out, was owing to the influenza epidemic. The house surgeon had also made 3520 visits to the homes of patients. The committee were of opinion that a more commodious and larger central dispensary was required for the borough.

South Shields.

The Mayor of South Shields, in reference to the resignation by Dr. Eustace Hill of the office of medical officer of health for the borough (having been appointed health officer for Durham County), said it was a source of deep regret that they had to part company with him. Dr. Hill had won the confidence not only of the county, but of the entire town. He was a comparatively young man, and they might congratulate him on receiving such an important appointment.

Ambulance Work in the North.

At Hexham, last week, Surgeon-Major Hutton examined a large class of over fifty males and females who had been instructed by Mr. Duncan Stewart, assisted by Major J. P. Gibson, in ambulance work. At the close of the examinations Surgeon-Major Hutton addressed the students, and encouraged them to hold regular practices. He remarked that if it were necessary he would undertake to place a thousand ambulance men at a short notice on any part of our coasts. The oldest student was Mr. W. Stokoe, who is in his seventy-sixth year, and who had been engaged in the work of giving first aid to the injured at the Fallowfield mines for forty years. The county police, railway servants, and Volunteers were represented in these classes.—At Darlington, too, a highly successful concert was given last week, at the conclusion of which Miss Fry presented certificates to the students who had passed in the recent examinations, and a presentation was afterwards made to Dr. Petter by the class as a slight token of their appreciation of that gentleman's services during the session. The chairman expressed his satisfaction with the success of the ambulance work, and hoped that next session another class might be formed.

Carlisle.

The outbreak of typhus fever at Carlisle may now be considered at an end. I regret to say that the nurse who attended the patients in their convalescent stage contracted the disease and died after a short illness. The medical officer of health has made some practical suggestions to the health committee, in which he shows that the disease, when it appears in Carlisle, usually breaks out in the month of April. This he accounts for by the fact that typhus fever is a disease of poverty and overcrowding, and that poor people are more susceptible to the infection when their scanty stock of health is reduced to the lowest ebb by the privations of the previous winter, and that Carlisle, being on the highway in connexion with Newcastle, Whitehaven, and Liverpool, is liable to the importation of the infection. I believe, however, as regards Newcastle, it is not so liable; for I have heard of no cases for the last few months. The medical officer makes a very useful recommendation to the committee, to establish a block hospital for the reception of doubtful cases of continued fever, so that when practitioners are uncertain as to the type of the malady patients may be sent there until its nature is cleared up.

The late Mrs. Wilson of Dallam Tower, whose will has been proved at Carlisle, left, amongst other charitable bequests, £100 to the Royal Albert Asylum at Lancaster.

Newcastle-on-Tyne, June 8th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Admission of Women as Medical Students to the Edinburgh Royal Infirmary.

IT is understood that the managers of the Royal Infirmary have decided on holding a conference with the staff with a view to trying to arrange for the clinical instruction of the twelve women who have applied for it.

The Pathological Department of the Royal Infirmary, Edinburgh.

As was mentioned here last week, proposals were under the consideration of the managers of the infirmary regarding the pathological department. The proposal was to have a senior pathologist who would devote his time to the work, and that he should receive a fair remuneration for doing so; and that there should be two assistants, who might be junior men, and would assist in the investigation of cases and in other work in the department. Nearly the whole staff, always excepting the University professors, were in favour of this, and it was felt that the arrangement would probably give a stimulus to pathological work, and would greatly enhance the opportunities for original work in the department. The scheme has been opposed by the University for a very curious reason—namely, that the senior pathologist might become so strong that he would attract students from the professor's classes. Whatever the reasons may be, the University thought it worth while to fight strongly against the proposals, and the result is that they have been thrown out, and the *status quo* is adhered to.

The Health of Edinburgh.

The mortality last week was 87, and the death-rate 17 per 1000. Diseases of the chest accounted for 40 deaths, and zymotic diseases for 6. The intimations for the week were typhoid fever 3, diphtheria 1, scarlet fever 14, and measles 45.

June 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

THE annual elections took place on Whit Monday, Mr. Hamilton being elected President, and Mr. Thornley Stoker Vice-President, without opposition. There were three candidates for the post of Secretary, Sir Charles Cameron being successful. The office is an honorary one, and since 1784 only four members have been elected. As has been pointed out, the first holder was Mr. Henthorne, who held office for the long period of sixty years. Mr. James Cusack succeeded Mr. Henthorne, his tenure lasting for seventeen years; and was followed by Mr. Hutton, who occupied the post for four years. The last was Mr. William Colles, who resigned recently, and retained office for twenty-seven years. The changes in the old Council are as follows: Mr. Croly, late President, and Mr. Carte, late Vice-President, go on the Council; Messrs. Stoker, Colles, and R. F. Tobin resign, while Mr. Hamilton becomes President. The two vacancies are filled by Messrs. Alcock Nixon and A. H. Benson. The annual meeting of the Fellows to consider the report of the Council was fixed for Saturday, the 4th inst. The accounts for the year show a decrease in the ordinary expenses of the College amounting to £488 12*s.*, while there is an increase of £40 11*s.* 10*d.* in the receipts during the same period. In connexion with the proposal to establish a new university in London, and to exclude from its medical degrees all candidates save those who have studied in London schools and hospitals, the suggestion was made by the Conference Committee of the College and the Royal College of Physicians, that communications should be opened with the Senate of the Royal University, with the object of effecting such conjunction of its examinations with those of the Colleges as would enable the diplomates of the Colleges to obtain the degree of M.D. without passing through a separate curriculum and series of examinations. The proposal, however, came to nothing, as the Senate of the Royal University refused to have anything to do in the matter. Dr. Davy, one of the professors

of medical jurisprudence, last month sent in his resignation, which has been accepted by the Council. The subjects of exclusion of Irish diplomates from hospital appointments in England, the enlargement of the College school buildings, and the abolition of the visiting physicianics of Irish lunatic asylums are also fully considered in the report.

Rotunda Lying-in Hospital.

At a meeting of the governors last week the plans for the proposed new auxiliary hospital were adopted, and a committee appointed to carry out the proposed scheme. In addition to the proceeds of the bazaar held last year it is estimated that a further sum of £4000 will be absolutely necessary to complete the new building, and an account has been opened at the Bank of Ireland to receive contributions for the desired purpose.

Irish Medical Association.

The annual meeting was held last Monday, presided over by Sir Charles Cameron, and afterwards by the newly elected President, Dr. Jacob of Maryborough. The report of the Council as regards its financial position was satisfactory, a considerable increase having taken place in the income of the Association, owing to 107 new members having been elected since the previous year. Several members who were in arrears for their annual subscription were struck off the list. The chief place in the programme of the Association was accorded, by the wish of the members and the Council, to the promotion of a Bill to secure pensions as of right for Poor-law officers, medical and non-medical, whenever they shall have become incapacitated from duty. The Council approached the Chief Secretary to obtain the support of the Government for the Superannuation Bill, but met with scant encouragement from that official, the interview accorded after one refusal to receive a deputation being strictly private, no reporter being allowed to take notes of the interview; and the attitude of the Chief Secretary to the proposals of the delegates was one of hostility. The Council have constructed a skeleton Bill to provide for safeguarding the issue of tickets, for much greater facilities for cancelling such tickets, and for a declaration that the issuer or the recipient may be held liable to pay the fees of the medical officer if the ticket shall have been knowingly or negligently issued to an improper recipient. The Council, however, do not intend to complete the proposed measure or introduce it into Parliament, being of opinion that no legislation on the subject should be actively promoted until the Superannuation Bill has been disposed of. The following resolutions were adopted by the meeting:—

"That we, the members of the Association, declare the claim of the Poor-law officers of Ireland to superannuation whenever they shall have become incapacitated for the performance of duty to be an equitable principle, and indispensable to the efficiency of the Irish Poor-law system. That, inasmuch as the services rendered by Poor-law officers are strictly obligatory, and are much more onerous than those performed by most civil servants, there is no just reason why the grant of pension, which is assured in the case of civil servants, should be left to the caprice of any body, as is the case of Poor-law officers. As experience has abundantly proved that the discretion vested in boards of guardians to refuse or grant pensions has operated as a great hardship towards Poor-law officers, and very much to the disadvantage of the service, it is therefore a matter of policy, apart from justice to the officer, that the grant of a pension in old age or infirmity shall be a matter of right. We therefore, while approving of the steps taken by the Council to obtain legislative authority for the necessary change of law, urge the Council to persist in the demands which they have put forward, and to relax no effort to bring the matter to the notice of the next Parliament."

"That the dispensary medical system of Ireland can never be satisfactory nor its medical officers contented until the method of the issue of medical relief tickets shall have been altered, so that persons of independent means may be prevented from availing themselves of the gratuitous services provided by the ratepayers for the relief of the poor. Such abuses not only operate as an encouragement to pauperism, but they burthen Poor law medical officers with work for which they are not paid, and, by withdrawing from those officers the private practice which is their legitimate means of livelihood, impose upon the ratepayers a much higher charge for Poor-law medical services than would otherwise be necessary. For these reasons a change in the law and regulation governing the distribution of Poor-law medical relief tickets is urgently needed; and the Council is hereby requested to press the matter upon the notice of Parliament, whenever a favourable opportunity shall arise, without delaying the settlement of the superannuation question; and that this Association cordially approves of the movement to secure direct Parliamentary representation with a view to obtaining redress of the above-mentioned grievances."

"That the cordial thanks of the Association be, and they are hereby, returned to the Parliamentary Bills Committee of the British Medical Association, to the Irish Medical Schools' and Graduates' Association, to the Royal Colleges of Physicians and Surgeons, and to the Poor-law Officers' Association, for the valuable countenance and assistance given to this Association in its efforts to promote measures for the redress of the grievances of the Poor-law medical officers, and that these thanks be conveyed by the secretary to the representatives of the bodies named."

"That the thanks of this Association are hereby gratefully tendered to the professional and general press for their constant advocacy of the claims of the medical profession, as well as for having given publicity to the proceedings of the Association."

The officer-bearers for the ensuing year having been appointed, the proceedings terminated. In the evening the annual dinner took place in the Royal College of Surgeons.

At a meeting of Convocation of the Royal University of Ireland the Rev. M. Leitch, Professor Sinclair of Belfast, and Mr. Thomson, M.D., F.R.C.S.I., of Dublin, were elected members of Senate.

The Medical Board of the Mater Misericordiæ Hospital have elected Mr. O'Sullivan, M.B., B.Ch., resident surgeon for the ensuing year.

June 7th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Influence of Incubators and "Gavage" on the Mortality of the Newborn.

AT the Paris Maternity there are born annually an average of 400 infants before term. As may be imagined, the mortality amongst this premature addition to the infant population was very great before the introduction of the system of incubation combined with "gavage." The beneficent effect of this system may be gathered from the perusal of the following figures: Mortality in the ante-incubator period:—Infants born in the sixth month, 100 per cent.; at six months and a half, 78·5 per cent.; at seven months, 61 per cent.; at seven months and a half, 46 per cent.; at eight months, 22 per cent.; at eight months and a half, 12 per cent. The incubator and "gavage" have converted these figures into 84, 63·4, 50·2, 23, 11·2, and 4 per cent. respectively. Comment is superfluous. It is, however, only right to recall the predominant part taken by Professor Tarnier in popularising this method of saving to the world a not inconsiderable number of human beings who would, under the old *régime*, have had hardly the time to make their bow to the family circle before quitting it for ever.

Precautionary Measures against Hydrophobia.

The walls of Paris are now covered with posters signed by the Prefect of Police, enjoining all owners of dogs either to muzzle their pets or lead them by a string during their peregrinations through the streets of this capital. Any infringement of this edict will be punished in a manner very unpleasant to the master, and still less pleasant to the poor beast, the police having orders to conduct it to the pound, where it will be killed. It will astonish no one who is familiar with the slovenly way such orders are carried out there when I state that this very day I noticed in the streets, wandering at their own sweet wills, numerous unmuzzled dogs.

The Paris Water-supply.

As usual, at this time of year, certain districts of Paris are obliged to consume water derived from the Seine, the *eau de source* being, owing to the continuance of dry weather, insufficient to supply the whole of the town. It is only right to explain that the parts of Paris most frequented by visitors are spared this dangerous infliction as much as possible, spring-water being supplied to them; while the inhabitants of the more populous arrondissements have to drink the fever-laden liquid known as *eau de Seine*. But since in the course of their wanderings tourists might wish to assuage their thirst in one of the infected areas, I should strongly advise them to make inquiries of the landlord of the hotel or pension at which they are staying as to the distribution of this polluted water. Only the other day, being seated at a *café* near the Panthéon, I was the means of preventing the absorption of this dangerous stuff by a fellow countryman who, although resident in Paris, was not posted up in these matters. A practical proposition has been recently adopted by the Municipal Council to the effect that all public fountains found in the less-favoured parts of Paris be fitted with *filtres hygiéniques*. I very much doubt, however, if anything short of boiling would induce me to drink Seine water. I again repeat that early next year we are promised

a supply of pure water equivalent to 100 litres per diem per inhabitant, which will render this city independent of drought and its regrettable corollary—recourse to Seine water.

Election to the Academy of Medicine.

Death has been very busy of late, and has caused many vacancies in the ranks of those eminent medical men who compose the Academy of Medicine. At the last election Dr. Desnos was successful against three competitors for the coveted honour—Drs. Dumontpallier, Laveran, and Hallopeau.

Professor Benjamin Ball.

The numerous friends of our distinguished compatriot, Dr. Ball, professor of mental medicine at this faculty, will regret to hear that illness has, for some time past, compelled him to discontinue his admirable teaching at Sainte Anne Asylum and at the Laennec Hospital. His kindness and courtesy to English practitioners visiting Paris for educational purposes are traditional, and I am sure that in wishing him an early recovery I am only echoing the sentiments of all who have come in contact with him.

Paris, June 8th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Langenbeck House.

THE annual surgical congress will be opened to-morrow in the new Langenbeck House, which is now finished. The building stands close to the Surgical Clinic of the University, fronting the Spree. The entrance is from the Ziegel Strasse. It is a plain brick building of three storeys, containing a fine assembly hall capable of seating 700 persons, a smaller hall to accommodate several hundred, a library, a reading-room, a museum, and custodian's rooms. The large hall is to be adorned by a portrait and a marble bust of Langenbeck, and the names of great surgeons are to be painted on the walls under the gallery. In the main corridor will be placed a marble bust of the late Empress Augusta (who took a keen interest in the project), flanked by portraits of the present Emperor and Empress. In the wall opposite these works of art are doors leading to the large hall, between which marble busts of Bardeleben, Billroth, Bruns, Busch, Taiersch, and Volkmann are to be erected. The site and the entire building cost about £27,500. This sum was raised by the German Surgical Society, aided by the Berlin Medical Society and the friends, pupils, and admirers of the great surgeon whose name the building bears. The ground behind the building is to be laid out as a garden.

Children's Hospitals on the German Coasts.

The Society for Children's Hospitals on the German Coasts, of which the Empress Frederick is patroness, held its twelfth annual meeting last Friday evening, Professor Leyden in the chair. The number of children received last year by the hospital which bears the Empress Frederick's name in the North Sea island of Norderney was 744. The number of children cared for there during the winter was 104. At Wyk, in the island of Föhr, also in the North Sea, 157 children were received; at Grossmüritz, on the Baltic, 206; and at Zoppot, also on the Baltic, 68. Of the total number (1175), 483 were cured, and 610 improved, some of them very considerably.

Statistics.

In the week which ended on the 21st ult. 2 persons died in Berlin of puerperal fever, 2 of typhus fever, 4 of quinsy, 5 of erysipelas, 8 of scarlet fever, 8 of whooping-cough, 9 of measles, 12 of cerebral apoplexy, 17 of gastro-intestinal catarrh, 17 of senile decrepitude, 22 of diarrhœa, 24 of diphtheria, 50 of diarrhœa with vomiting, 59 of pneumonia, and 86 of pulmonary phthisis. Twenty died by violence, including 8 suicides. Of the German cities, Hanover had the lowest death-rate (13·1), Chemnitz the highest (28·5). The death-rate of Leipsic was 18·1, of Berlin 20·8, of Breslau and Frankfort-on-the-Maine 22·4, of Hamburg 24·2, and of Munich 28·3.

Miscellaneous Items.

The German naturalist, Hermann Burmeister, died at Buenos Ayres on the 22nd ult., aged eighty-five. His main advice to science was the investigation of the climate, soil, and fauna of Brazil and Argentina. He founded the Natural History Museum in Buenos Ayres.

The magistrates of Berlin have appointed Professor Moeli director of the new lunatic asylum of Herzberge, near Lichtenberg, a large village east of Berlin.

Dr. Paul Guttmann, director of the internal department of the hospital belonging to the city of Berlin in the suburb of Moabit, celebrated his twenty-fifth anniversary as a private lecturer in Berlin University yesterday.

Berlin, June 7th.

AUSTRALIA.

The Sydney Cancer Curers.

THE trial of the two Hoods—father and son—for the manslaughter of a woman named Cohen was concluded last week, and resulted in a verdict of "guilty" being found against both the prisoners. The facts elicited at the trial were of a most startling nature, and furnish most convincing proof of the "gullibility" of the general public. In February, 1891, a Mrs. Cohen applied at the Sydney Hospital for treatment, and was seen by the medical superintendent, Dr. Hull. He diagnosed the case as one of epithelioma of the lower lip, and advised the woman to have it excised. She went away promising to return, and no more was seen of her until the following Christmas, when she again sought hospital treatment. Then it was found that the growth had extended widely and had involved the tissues of the neck, that the woman was in a very depressed condition, and that she was beyond all human skill. It was elicited from her that she had been under the treatment of the Hoods, who had applied caustics and poultices to the cancer, and for eleven months had lured her on with promises of a cure. The woman died in February of this year, and, Dr. Hull having refused a certificate of death, the matter passed into the hands of the coroner. The case went on for several weeks, and ended in the committal of the Hoods for manslaughter, of which they have just been found guilty. The evidence showed that the unfortunate woman had had Hood's "secret cancer cure" applied to her lip, and that shortly after the application Hood had taken the growth between his fingers and dragged part of it away, causing her most intense agony. A poultice was then applied, and the wretched patient sent home. During the operation some of the "specific" fell on the woman's dress, and it was of such a nature that "it burned holes in the cloth." Both the prisoners showed themselves profoundly ignorant of everything appertaining to medicine and surgery. Neither had had any training, and the elder man was not able to say what the M.D. and B.A. which he wrote after his name meant. In accordance with the law which obtains in this country both the accused were allowed to go into the witness-box and give evidence in the case. This gave the Crown Prosecutor an opportunity of finding out what they really knew about cancer. Here is their definition of cancer: "A parasitic spongy tumour containing cells growing from the glands and bloodvessels, and infested with microbes of the size of a louse's egg. The parasite has a mouth and a body, and takes its nutriment from the surrounding bodies by 'exorption.'" Hood had never seen the parasites, but had felt them as hard bodies; it required a microscope to see them. Hereupon the prosecuting counsel produced a microscope and some slides, and asked the accused to demonstrate the parasites to the jury. The man had evidently never used a microscope, and was utterly unable to use it. It is a clear gain to the public that two such shameless charlatans are safely within the gaol walls, and both the public and the profession owe a deep debt of gratitude to Dr. Hull for the manliness and public spirit he showed in bringing about that result.

The Windsor and Rainhill Murderer.

The trial of Deeming, or Williams, for the murder of his wife in one of the suburbs of Melbourne is of more than local interest because of the allegations made against him by the English police, and of the suspicion entertained by the authorities that he is the perpetrator of the Whitechapel outrages. On the first day of the trial an attempt was made to have it postponed, and two medical men who had examined the prisoner gave evidence to the effect that he had had fits, probably epileptic, that he had had syphilis, and that he was possessed of the belief that his deceased

mother visited him every morning at 2 A.M. to counsel him to murder his wife and the woman who infected him with syphilis. On these grounds time was asked to investigate Deeming's mental state, and to prove, if possible, that he was an epileptic, and that instead of being tried for murder he should have been sent to a lunatic asylum. The judge pointedly asked the medical witnesses whether, supposing they got all the family and personal history they desired, they would be able to say whether Deeming was sane or insane on the day on which the murder was committed. The doctors having replied in the negative, the judge ordered the trial to proceed.

Anæsthetics in Sydney.

The Colonial Treasurer tabled in the Assembly a return of the number of persons to whom anæsthetics were administered in the metropolitan hospitals of Sydney during the year 1891, together with particulars of the fatal cases. The return shows that in the Sydney Hospital 503 persons were anæsthetised during the year, but that no deaths resulted. In the Moorcliff Eye Branch of the Sydney Hospital forty-six persons were anæsthetised, and of these one person died, the anæsthetic used being chloroform. At the Prince Alfred Hospital 897 persons were treated, resulting fatally in one case, this person having been placed under a mixture of chloroform and ether. Two hundred and ninety persons were treated at St. Vincent's Hospital, 1 at the Coast Hospital, 165 at the Children's Hospital, Glebe Point, 32 at the Children's Hospital, Lewisham, 37 at the North Shore Hospital, and 15 at the Balmain, but in no case did the treatment have a fatal effect. Thus it would appear that last year there was one death in every 993 anæsthetisations. As the estimated average in the Sydney metropolitan hospitals for the seven years 1885–91 is one death in about 700 anæsthetisations, there is something to be thankful for in last year's returns. Seeing, however, that the Berlin mortality is only one in 4000 anæsthetisations, the profession in Sydney has yet some advance to make.

The Intercolonial Medical Congress.

This Congress will open in Sydney next September and last a week, but I doubt whether it is likely to be as successful as the previous congresses held in Adelaide and Melbourne. A meeting of the profession was held recently in Sydney, to which the press was not admitted. An official report has been published, however, which, seems to show that great dissatisfaction exists. As a leading Sydney doctor puts it, "the constitution of the officials and the executive committee is one-sided and injudicious, and appears to be the outcome of favouritism combined with the old cliquism, which is a lamentable blot on medical professional life in Sydney."

April 30th.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

Annual Meeting of the New Zealand Medical Association.

THE seventh annual conference of the New Zealand Medical Association was held at Wellington on March 15th and following days. Delegates from the various cities of the colony were present, and members of the several local branches also put in an appearance. The Congress was, from every point of view, a decided success, chiefly owing to the tact, promptness, and business capacity of the president, Dr. Grace of Wellington, who made an ideal master of the ceremonies. The president, in an eloquent speech, drew the attention of the members to the fact that we are educating at the Dunedin School of Medicine a great many general practitioners, and it becomes important to consider what is the character of the education imparted, and to search out the most effective means by which we can strengthen the hands of the professors and clinical teachers. The law which regulates the general management of hospitals is unfortunately of such a nature that the election of medical officers and teachers is entirely vested in trustees, a body of gentlemen elected by the ratepayers. It is hardly necessary to state that such a body may easily err in the election of really competent teachers. (As a matter of fact, Dr. Brown of Dunedin, later on in the Congress, and speaking on this point, stated that the present trustees at Dunedin always acted on advice given regarding the elections, and that fortunately no trouble had arisen in this way in Dunedin.) It would be too absurd to allow such a law to remain in existence when it becomes known that such a state of things might possibly mean the letting loose of a band of practitioners who had not been taught to "observe" correctly. The New Zealand University alone grants degrees in medicine, which by Imperial statute is recognised all over the empire; but at the same time the colony, by its laws, deprives the University of even a voice in the selection of its clinical teachers. There is no doubt that this subject requires immediate and serious consideration to prevent any difficulty in the future. The president also threw out the suggestion that the Association should petition the Senate of the New Zealand University to frame a statute enacting "that no student shall take an M.B. degree in the New Zealand University without first passing the B.A. examination." The Congress subsequently passed a motion embodying Dr. Grace's views, and introduced by Dr. Mackenzie, to this effect after a brief discussion. The president drew attention also to the existing system of medical registration, which is essentially faulty, in the following words: "That wholesome patriotism which teaches men to think of their fellows in preference to strangers should teach this colony to take steps rigidly to exact proof from each candidate for registration of a standard of proficiency equal to that required by the New Zealand University from colonists. I know that the present system fails to afford sufficient safeguards, and I think such instances will be in the knowledge of each one of you as will justify you in supporting my contention." Several valuable contributions were read on various subjects by the following medical gentlemen: Mr. Garland on "The Creasote Treatment of Tuberculosis;" Dr. Fell on "Intestinal Obstruction." Dr. Collins, of Wellington, gave some very interesting notes on cases under his care for the radical cure of hernia, after the method of Mr. Bennett, of London, all of which turned out eminently successful. Dr. Gillon, on "Supra-pubic Lithotomy," too, has to be congratulated on the successful issue of his cases. These papers elicited considerable discussion. They are, with the exception of Dr. Collins' notes, published in the April number of the *New Zealand Medical Journal*. Altogether the meeting has been, perhaps, the most practical and useful that has yet been held, for rules and regulations as to procedure have been adopted which have cancelled many difficulties. The visiting members were entertained right royally by their Wellington brethren, and their thanks are due for a delightful visit coupled with good companionship and hearty hospitality. Mr. Knight, on behalf of the Auckland Branch, invited the Association to meet at Auckland next year, which invitation was unanimously accepted.

The Sanitary Condition of Wellington.

It is no wonder that Lord and Lady Onslow shunned Wellington, or that the new Governor should have stipulated for special sanitary provisions being undertaken in respect of the residence set apart for him and his family, for dirt, disease, and death have given this city an unenviable notoriety among the cities of the colony. From its natural formation and surroundings generally, Wellington should present no difficulties in the way of proper sanitation, and it is a great pity that typhoid fever, which has raged in this city from time to time, has never been really efficiently attacked from a sanitary aspect. Dr. Chapple, who, by request of the City Council, has made a special investigation into the causes of the prevailing epidemic, has presented details which reflect disgrace upon the authorities and upon the residents of the special localities to which his remarks apply. For years past slaughter-yards and dairies have been attacked as the origin of this disease; but the report proves that the disease has arisen from preventable causes at the very doors of the inhabitants themselves. Dr. Chapple "found no connexion between the milk-supply and typhoid, for members of individual families who constantly drank milk escaped infection, whilst those who seldom or never took milk were laid low with fever." The yearly outbreaks of fever have been confined to a small area in the Te Aro end of the city. In Holland-street Dr. Chapple "found the traps foul from the accumulation of filth at the bottom. The grating top is movable, and in one case the people had been in the habit of lifting it and putting down anything that would go, including bedroom slops. In an adjoining house a gully, half under the scullery wall, received everything

from the sink inside the house. This gully was completely stopped by accumulation, chiefly fæcal, and was abominably foul, and the semi-liquid overflow could be traced far under the house." The above is but a mild description of the general condition of affairs in this particular locality, for Dr. Chapple has in no measured terms brought before the public gaze the horrible condition of sewage contaminations. Dr. Chapple states that he has found that there is a pretty constant relationship between sudden heavy rainfall and the prevalence of typhoid fever. Dr. Ewart, resident surgeon to the Wellington Hospital, also bears out the fact "that after heavy rainfalls typhoid cases crowd into the hospital, and the nurses fully anticipate this influx, which is always invariably realised in from ten to fourteen days after rainfall." For the last two years typhoid fever has been largely confined to the part of the city mentioned. As there is no system of safe disposal of typhoid fever excreta, most of which find their way to the drains, it is quite to be expected, Dr. Chapple thinks, that a displacement of sewer gases in this district would be followed by an epidemic, while the other parts of the city enjoyed comparative immunity. As the outfall into the harbour is unprotected, prevailing winds blowing up the sewer increase enormously the gas tension. I recently visited the Wellington Hospital, and was most courteously shown over the wards by Dr. Ewart. Fifty-two cases of typhoid fever were located in the hospital at that time, and the number has, I understand, increased in the meantime. Surely the city authorities must now bestir themselves—in at least so far as the drainage of the Te Aro end of the city is concerned. If this report is only half true, it is simply horrifying. The marvel is, not that in each case two or three members of the householder's family have been attacked, but that any one escaped. I think it is high time that a law is passed which will throw the expense of making houses fit for habitation on the owners of the property. Too frequently now it falls upon the unhappy tenant, who, to save his life, has to spend money upon another man's property. And, further, I consider that it should be made illegal for any landlord to sell or let any house without first receiving a certificate from some responsible body that it is in a proper sanitary condition, and not a mere death-trap.

April 21st.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on June 9th.

The Minutes of the Quarterly Council on May 7th were read and confirmed.

The report, dated May 23rd, from the "Committee on Advantages to Fellows" was approved, adopted, and entered on the minutes.

The following are the principal points which the Committee have had under their consideration, viz.:—(1) Meetings of Fellows; (2) Common Room for Fellows; (3) Admission of Fellows as visitors to meetings of the Council. With regard to the first point, viz., Meeting of Fellows, the Committee recommend: "That Meetings of Fellows, apart from the Members, at which the President or other Member of the Council acting for him shall preside, be summoned by the President and Council for consultative purposes at such times and for such objects as may by the Council be thought desirable, either with or without a requisition from the Fellows." In making this recommendation the Committee think it desirable to state that, in the event of its adoption by the Council, it would not in their opinion be reasonable to refuse to summon a similar meeting of Members upon the same conditions. With regard to the second point—viz., Common Room for Fellows—the Committee find that, legally, there might be some difficulty in permanently assigning any part of the corporate premises to the exclusive use of any section of the Corporation, and are not therefore prepared to recommend the provision of a Common Room for the exclusive use of the Fellows as suggested to the Council by certain Fellows of the College, but would recommend: "That the room adjoining the Secretary's office, now forming a part of the Library not used by readers, be furnished as a Common Room for the use of Fellows and Members of the College." With regard to the third point—viz., admission of Fellows as visitors to the meetings of the Council—the Committee are not prepared to make any recommendation in favour thereof.

An addendum to the following effect was also received and entered on the Minutes:

The following members of the Committee—viz., Mr. Macnamara, Mr. Willett, and Mr. Rivington—consider that in the preamble of the report, after the words "have held three meetings," should be inserted the words "at which they have only considered proposals not involving changes in the Charter and By-laws."

A report, dated May 30th, 1892, of the "Committee on Advantages to Fellows," was likewise approved, adopted, and entered on the Minutes.

The report stated that the Committee have, in pursuance of the instructions of the Council, also taken into consideration the best means of giving effect to the proposal adopted by the Council, "That it is desirable to celebrate in some suitable manner the fiftieth anniversary of the institution of the Fellowship of this College (the Charter creating this order being dated Sept. 14th, 1843)," and the Committee recommend the Council to adopt the following suggestions, viz.:—That the jubilee of the Fellowship be celebrated on Thursday, July 6th, 1893, the date of the annual meeting of Fellows for the election of members of the Council. That a conversazione be held at the College on the previous evening, Wednesday, July 5th, 1893. Cards of invitation, admitting ladies, to be sent to the Fellows of the College; Members to be invited on applying for cards of invitation. That an address be given by the President in the theatre of the College at 1 o'clock P.M. on the Thursday before the opening of the ballot for the election of members of the Council. That a Fellows' dinner be held on the Thursday evening at some convenient place.

The Council recommended Dr. Luff as a candidate for the post of Official Analyst to the Home Office.

A letter of the 4th inst. from the President was read, reporting the proceedings of the General Medical Council at their late session. The letter was received and entered on the Minutes, and the best thanks of the Council were given to the President for his services as the representative of the College on the General Medical Council.

The President stated that he had accepted, on behalf of the Council, a plaster bust of Mr. T. H. Huxley, presented to the College by Mr. W. H. Flower, late Conservator of the museum. Mr. Flower was thanked for his gift.

Messrs. Hulke and Howse were appointed to confer with delegates of the Royal College of Physicians as to the Gresham University Royal Commission, and to give evidence if they thought it advisable.

A motion was carried to the effect that the Fellows of the College be invited to meet the President and Council on July 7th, at 5 o'clock.

Medical News.

THE Government of India have decided that as officers of the Indian Medical Service of less than three years' full-pay service have now the rank of subaltern only, they are entitled, under the provisions of para. 282, Army Regulations, Vol. X., Part I., to a free passage by sea when proceeding to England on leave on medical certificate.

GENERAL HOSPITAL, CHELTENHAM.—At the recent quarterly meeting of the governors it was recommended that a special wing should be erected for the accommodation of additional trained nurses. The scheme includes the formation of a staff of twenty-four nurses available for private nursing, and the estimated outlay is about £2000. The board favourably entertained the proposal in consequence of the increasing demand for skilled nurses.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.—The annual meeting of this Society was held at the Grand Hotel, Birmingham, on Friday, May 27th, when the director's report and the financial account were presented and the officers for the ensuing year elected. Founded in 1821, the Society has been doing good work, and affording relief to those of its members or the widows of late members who have been urgently in need of assistance. The inducements to join are such as should secure a much larger number of members than are at present on the list; indeed, when appealed to on the twofold ground of providence and benevolence, it is difficult to understand why all within the area of its operation do not join. There must be a large number of men, at any rate, during their earlier years of practice to whom, from the nominal subscription, the Society offers great advantages for making provision against a possible breakdown, while to those few whose position is apparently secure the opportunity of helping others less fortunate should not be neglected. Any registered practitioner "regularly practising his profession," and residing within fifty miles of Birmingham, is eligible for membership; members do not lose their privileges by subsequent removal beyond the area prescribed for their admission. It is to be hoped that the Society may receive a more general support from medical men in the Midlands, so that its good work may be increased. The honorary secretary, Mr. W. F. Haslam, will gladly give any information to applicants for membership.

HAYDOCK COTTAGE HOSPITAL.—This hospital was erected six years ago to meet the requirements of this large mining centre. Additional accommodation being necessary, the committee have decided to build a ward to provide for four more patients, and to add several small rooms. At present there are two wards and ten beds.

METROPOLITAN OPEN SPACES.—Last week Avondale Park, Notting-hill, was formally dedicated to the public as an open space. The land was purchased at a cost of £9200. On Monday the ceremony of declaring Brockwell Park open as a public recreation ground was performed by Lord Rosebery. It contains seventy-eight acres of land well situated between Brixton, Tulse-hill, Herne hill, and Norwood.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY-ROAD.—The twenty-fourth annual report shows that the number of in-patients treated during the past year was 508, and of out-patients 13,722, the latter showing 48,909 attendances. In the twelve months, 36 patients had been sent to the Convalescent Homes at Northwold and Cardington. The Samaritan Fund had provided 102 trusses and 68 other instruments. Alterations and improvements had involved an outlay of £741 14*s.* 3*d.*

LINCOLN COUNTY HOSPITAL.—On Tuesday, in the presence of an influential assembly, Mrs. Joseph Ruston formally opened the children's ward and the new building given by Mr. J. Ruston, D L., to this hospital. The Earl of Yarborough presided on the occasion. The cost, upwards of £4000, of the new building has been entirely provided by the generous donor. The old out-patients department has been converted into a ward for the children, and a new pavilion erected for the out-patients, with a board room and other needed additions.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows held on June 6th the following office-bearers were elected for the ensuing year:—President: E. Hamilton. Vice-President: W. Thornley Stoker. Secretary: Sir Charles Cameron. Council (in order of Fellowship seniority): Sir George Porter, Bart., G. H. Kidd, Rawdon Macnamara, J. Kellock Barton, Edward Hallaran Bennett, Henry Gray Croly, Philip Crampton Smyly, Henry R. Swanzy, W. Ireland Wheeler, Austin Meldon, William Carte, Sir Charles A. Cameron, F. Alcock Nixon, Kendal Franks, Charles Bent Ball, J. B. Story, Henry FitzGibbon, A. H. Benson, and Thomas Myles.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Duke of Rutland has sent a donation of 300 guineas to the Derby Infirmary.—The late Mrs. Anna A. Salisbury, of West Brighton, bequeathed £500 to the British Home for Incurables and £1000 to the Royal London Ophthalmic Hospital.—Mr. J. G. Barclay has forwarded a donation of £200 to the treasurer of the North-Eastern Hospital for Children, Hackney-road.—The treasurer of the Beckett Hospital, Barnsley, has received £200 bequeathed by the late Mrs. A. M. Smith, Sheffield, to that institution.—Mr. Frederick W. Bigge, late of Knightsbridge, bequeathed £100 to the St. George's Hospital, Hyde-park-corner.—The Leathersellers' Livery Company has voted 50 guineas to the Poplar Hospital for Accidents.—The Clothworkers' Livery Company has made a grant of £50 to the Grosvenor Hospital for Women and Children, Vincent-square, S.W.—The London Court of Common Council has voted 50 guineas towards the building fund for the extension of the Richmond Hospital.—The Grocers' Livery Company has granted £500 to the rebuilding fund of the Poplar Hospital for Accidents.—The committee of the Yorkshire Rugby Football Union has made grants amounting to £1700 to the Yorkshire charitable institutions, of which £350 was apportioned to the Leeds Infirmary, £150 to the Bradford Infirmary, £120 to the Huddersfield Infirmary, and £100 to the Clayton Hospital, Wakefield.—It was announced at the meeting last week of the Rural Hospital Committee, Tewkesbury, that the late Mrs. Elizabeth Surman had bequeathed to the hospital £1000, reducible to £500 in the event of the residuary trusts' fund not being adequate to pay other legacies contained in her will.—Mr. J. P. Cairnes has given £100, Mr. C. Martin £50, Mr. S. Adair £25, and Mr. R. Boyd £20, to the building fund of the Rotunda Auxiliary Hospital.

CHILDREN'S HOSPITAL, PADDINGTON-GREEN.—Mr. George Hanbury, the treasurer, presided at the annual meeting, held on the 25th ult. The report submitted showed a decrease in the subscriptions and donations, amounting to £252 compared with the previous year, which was much to be regretted in view of the extension, which, for sanitary reasons, must be proceeded with without delay. The site had been purchased, and it only remained to raise funds to commence building. For this object £3062 had been collected, and the sum still required was £5000, for which the chairman made an earnest appeal.

GENERAL PRACTITIONERS' ALLIANCE.—A meeting of this Society was held at the offices, 11, Adam-street, Strand, W.C., on Wednesday, June 1st, Mr. George Brown (president) in the chair. The subject of the proposed Midwives' Registration Bill having been discussed, it was moved by Mr. J. B. Cook, seconded by Mr. W. E. Dawson, and resolved: "That Messrs. Campbell Boyd, George Brown, F. H. Corbyn, and Hugh Woods, M.D., be requested to give evidence before the Commission on the subject of registration of midwives." The annual general meeting of the General Practitioners' Alliance will be held on Wednesday, June 29th.

NORTH SHIELDS AND TYNEMOUTH DISPENSARY.—The annual report for the past year (the ninetieth) showed that the year's total income from all sources was £301 4*s.* 3*d.*, and the expenditure £278 14*s.* After investing £100, a surplus of £94 0*s.* 3*d.* remained in hand. The admissions by ticket show an increase of 351 on 1891. The casual patients relieved at the dispensary were 6758, an addition of 2663, attributable chiefly to the influenza epidemic in the district. A more commodious and central dispensary is necessary for the increasing wants of the borough, and the committee recommended that the present building be sold and more central premises purchased or rented.

POPLAR HOSPITAL FOR ACCIDENTS.—The thirty-seventh annual festival of this institution took place last week at the Holborn Restaurant, Mr. John Coles presiding. The chairman, in proposing the toast, "Success to the Poplar Hospital and the Medical Staff," remarked that the institution was doing an excellent work under great difficulties, the present building being wholly unfitted for the purposes to which it was devoted. In consequence, since 1881 the committee had endeavoured to set aside a reserve fund, which now amounted to £12,000, and it was intended to erect a new wing to enable the staff to carry on the work more efficiently. A large sum was still required to complete the necessary extensions, and he made an urgent appeal for funds. The subscriptions and donations amounted to upwards of £5000.

THE BRITISH INSTITUTE OF PUBLIC HEALTH.—The first general meeting of the British Institute of Public Health was held on Friday, June 3rd, at King's College, London, Sir Charles A. Cameron in the chair. The Provisional Council presented a report, in which they detailed the work undertaken since the incorporation of the Public Health Medical Society. The Institute is receiving the hearty support of medical officers of health and other gentlemen holding public health qualifications. After payment of expenses, the Institute has a balance of £140 to its credit at the Bank of England. The scheme for the examination of candidates for certificates of their efficiency to act as sanitary inspectors is now complete, and the first examination will be held in October. The first number of the Journal of the Institute will appear in July. The following gentlemen were elected as officers for the ensuing year:—President: Sir Charles A. Cameron, M.R.C.P.I., F.R.C.S.I., D.P.H.Camb., Medical Officer of Health for Dublin. President-elect: Henry Duncan Littlejohn, M.D., F.R.C.S. Edin., Medical Officer of Health, Edinburgh. Treasurer: Francis J. Allan, M.D., D.P.H. Camb. Hon. Secretary: Charles A. James, L.R.C.P., D.P.H. R C.P.Lond. The annual meeting of the Institute will take place in Dublin at the end of August, under the auspices of the Irish branch, when an address will be delivered by the President. The following subjects have been chosen for special discussion—viz., the Etiology of Typhoid Fever and the Notification of Infectious Diseases. Papers on other subjects have been promised.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on June 7th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	300*	75	..	14	..	389	482
North-Western Hospital	274	53	..	6	3	334	411
Western ,,	109*	29	..	9	3	150	224
South-Western ,,	239	34	..	4	3	280	360
South-Eastern ,,	301	8	1	13	1	324	424
Northern ,,	533	19	..	..	...	552	732
Totals	1754	218	1	46	10	2029	2633

* One infant with mother.

SMALL-POX. *Atlas* hospital ship, 54; *Castalia*, 32. Total, 86.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ANDREW, J. GRANT, M.B., C.M. Glasg., has been appointed Surgeon to the Victoria Infirmary Dispensary, Glasgow.

ARNISON, W. C., M.D. Durh., M.R.C.S., has been appointed Professor of Surgery to the University of Durham, vice G. Y. Heath, deceased.

BIERNACKI, J., M.B., C.M., L.R.C.S., L.R.C.P. Edin., has been appointed Assistant House Surgeon to the Bootle Borough Hospital.

BRADBURY, J. A., M.R.C.S., has been appointed Medical Officer to the Workhouse, Wigan Union.

BURDWOOD, JAS. W., L.F.P.S., L.M. Glasg., has been reappointed Medical Officer of Health for the Bourne Rural Sanitary District of the Bourne Union.

BUTLIN, HENRY TRENTHAM, F.R.C.S., has been appointed Surgeon to St. Bartholomew's Hospital, vice W. Morrant Baker, F.R.C.S., resigned.

CLEMMEY, W. N., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Bootle Borough Hospital, vice T. Gilcriest, resigned.

COLLUM, ARCHIE T., L.R.C.P., M.R.C.S., has been appointed Surgical Registrar to Charing-cross Hospital.

COLWELL, J. K., has been appointed Public Analyst, Board of Works District of the Holborn Union, vice Redwood, deceased.

COONEY, JOHN E., L.R.C.P. Edin., L.F.P.S. Glasg., D.P.H. Camb., has been reappointed Medical Officer of Health for Fulham.

COUPER, DAVID, M.D., C.M. Glasg., has been appointed Surgeon for Diseases of the Skin to the Victoria Infirmary Dispensary, Glasgow.

FOSTER, M. B., M.R.C.S., L.R.C.P., has been appointed House Surgeon to Charing-cross Hospital.

GARLAND, E. C., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Yeovil.

GOWING, B. C., M.R.C.S., has been reappointed Medical Officer of Health for the Penistone Urban Sanitary District of the Penistone Union.

GRACE, HENRY, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health to the Kingswood Local Board.

HAMILTON, JAMES, M.B., C.M. Glasg., has been appointed Physician to the Victoria Infirmary Dispensary, Glasgow.

HARPER, JOHN W., M.R.C.S., has been reappointed Medical Officer of Health for Stowmarket.

HASWELL, J. F., M.B., C.M. Edin., M.R.C.S., has been reappointed Medical Officer for the First Sanitary District of the Penrith Union.

HIRST, WALTER, L.R.C.P., L.R.C.S. Edin., has been appointed Resident Assistant Medical Officer to the Leeds Union Infirmary.

HUNTER, GEO., L.F.P.S. Glasg., has been appointed Surgeon for Diseases of the Eye to the Victoria Infirmary Dispensary, Glasgow.

JENKINS, T. W., M.D., C.M. Glasg., has been appointed Physician to the Victoria Infirmary Dispensary, Glasgow.

JOHNSTON, EDWD. C., M.R.C.S., has been reappointed Medical Officer of Health for Leckhampton.

KELLY, A. BROWN, B.Sc., M.B., C.M. Glasg., has been appointed Surgeon for Diseases of the Throat, Nose, and Ear to the Victoria Infirmary Dispensary, Glasgow.

KENNEDY, ROBT., M.B., C.M. Glasg., B.Sc., has been appointed Surgeon to the Victoria Infirmary Dispensary, Glasgow.

LIMRICK, WM. S., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for Great Crosby.

MACKAY, W. J., M.B., C.M., Sydney, has been appointed Resident Medical Officer to the Hospital for Women, Soho square, London.

PALMER, W. M., L.S.A., L.R.C.P., M.R.C.S., has been appointed Resident Obstetrical Officer to Charing-cross Hospital.

PRIESTLEY, JOSEPH, M.D., C.M. Edin., M.R.C.S., D.P.H. Camb., has been appointed Assistant Medical Officer for Camberwell.

SAMUELSON, GERALD S., M.B. Edin., Surgeon Gundagai Hospital, N.S.W., has been appointed Government Medical Officer and Public Vaccinator for the District of Gundagai.

SENIOR, H. D., M.R.C.S., L.R.C.P., has been appointed House Physician to Charing-cross Hospital.

SHANNON, R. A., L.R.C.P., L.R.C.S Edin., has been appointed Medical Officer for the Second Sanitary District of the Bromley Union.

SMITH, PERCY, M.R.C.S., L.R.C.P. Lond., L.D.S. Eng., has been appointed Dental Surgeon to the Victoria Hospital for Children, Queen's-road, S.W.

SWAIN, JAMES, M.D. Lond., F.R.C.S., has been appointed Honorary Assistant Surgeon to the Royal Infirmary, Bristol.

WALDO, F. T., M.A., M.D. Camb., M.R.C.S., D.P.H., has been appointed Medical Officer of Health to the Parish of St. George the Martyr, Southwark.

WATSON, WM. T., M.D. Oxon., M.R.C.S., has been reappointed Medical Officer of Health for Tottenham.

WILLS, CHARLES, M.R.C.S., has been reappointed Medical Officer of Health for Mansfield.

YOUNG, EDWD. H., M.D. Durh., L.R.C.P. Lond., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health for Okehampton.

YUNGE-BATEMAN, M. G., M.R.C.S., has been appointed Medical Officer of Health for Folkestone.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD EYE AND EAR HOSPITAL.—Special Assistant Surgeon. Honorarium 100 guineas per annum.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN, West-street, Brighton.—House Surgeon. Salary £150 per annum, with rooms and gas.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon. Salary £160 a year, with furnished rooms and attendance.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £40 per annum, with board, lodging, and washing.

COUNTY BOROUGH OF SOUTH SHIELDS.—Medical Officer of Health for one year. Salary £200. (Apply to the Town Clerk, 35, Market-place, South Shields.)

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. No salary, but board and lodging provided.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. No salary, but board and lodging provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Physician to Out-patients.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer for one year. Salary £130 per annum, with residence, board, and washing.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. Residence, board, and washing provided.

GLOUCESTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Qualified Medical Practitioner.

HARWOOD, E. T., 18, Ely-place, London, E.C.—Medical Officer for a Club. Salary for first year £100.

LIVERPOOL DISPENSARIES, Leith Offices, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, with apartments, board, and attendance.

M. D. S., THE LANCET Office, 423, Strand, W.C.—Assistant Medical Officer in a Private Metropolitan Asylum. Salary commencing at £100 per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—Assistant House Surgeon. Board, apartments, and washing provided.

PARISH OF ST. MARY, Islington.—Medical Officer of Health. Salary commences at £600 per annum, with an annual increase of £25 to £800 per annum. (Apply to the Vestry Clerk, Vestry Hall, Upper-street, Islington.)

PUBLIC HOSPITAL AND DISPENSARY, Sheffield.—Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. Board and rooms provided. No salary.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.—Clinical Assistants for six months.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, W.—Honorary Physician.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

WARNEFORD HOSPITAL, Leamington.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard-street, Soho, W.—Honorary Physician.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Assistant Ophthalmic Surgeon.

WOLVERHAMPTON AND DISTRICT HOSPITAL FOR WOMEN, Wolverhampton.—Two Honorary Acting Gynæcological Surgeons.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician. Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ADENEY.—On June 3rd, at 3, Mount Sion, Tunbridge Wells, the wife of E. Leonard Adeney, M.D. Lond., of a daughter (Armorel).

GORDON.—On June 5th, at Witheridge, N. Devon, the wife of H. Laing Gordon, M.B., C.M. Edin., of a son.

GREENFIELD.—On May 31st, at Heriot-row, Edinburgh, the wife of W. S. Greenfield, M.D., F.R.C.P., of a daughter.

HANDCOCK.—On June 2nd, at Girlington, Bradford, the wife of George Handcock, M.R.C.S., of a daughter.

LANGRAN.—On June 7th, at Belle Vue, Axminster, Devon, the wife of W. Langran, L.R.C.P. Edin., of a daughter.

MOLSON.—On June 1st at Montreal, Canada, the wife of J. Elsdale Molson, M.B., B.C. Cantab., M.R.C.S., of a son.

PATTERSON.—On June 2nd at 353, City road, E.C., the wife of Charles S. Patterson, M.B., M.R.C.S., of a son.

ROBERTSON.—On June 3rd, at Mayfield, Western Parade, Southsea, the wife of Dr. J. R. S. Robertson (late A.M.S.), of a son.

SHACKLETON.—On May 16th, at Georgetown, Demerara, the wife of T. F. Shackleton, M.R.C.S., of a daughter.

SINCLAIR.—On May 30th, at Osborne-road, Clifton, Bristol, the wife of Surgeon-Lt.-Col. D. Sinclair, H.M.I.A., of a daughter.

TAIT.—On June 7th, at Lincluden, Sunnyside-road, Hornsey-lane, the wife of Henry Brewer Tait, F.R.C.S., of a son.

THORESBY-JONES.—On June 1st, at Sutherland-avenue, W., the wife of Dr. James Thoresby-Jones, of a daughter.

WICKS.—On June 4th, at Newcastle-on-Tyne, the wife of Charles Wicks, L.R.C.P. Edin., L.R.C.S., of a son.

WILLAN.—On June 1st, at Albert House, Esher, the wife of Leonard James Willan, M.R.C.S. Eng., L.S.A., of a son.

WRIGHT.—On June 6th, at Coltishall, Norfolk, the wife of Bernard Zorapore Wright, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

BOURNE—ALLEN.—On June 1st, at Leamington Parish Church, Edmund Kemp Bourne, M.D., only son of the late William Kemp Bourne, M.D., of Fisherwick, Lichfield, to Nina Maud, daughter of the late Barton Fletcher Allen, Esq., Liverpool.

BROWN—JONES.—On June 1st, at Stoke Parish Church, Coventry, F. Lenox Harman Brown, M.B., C.M. Edin., eldest son of Major Harman Brown, of Norwich, to Dora Annie, eldest daughter of Vickers H. Jones, Esq., of Stoke, Coventry.

CADDY—CLATER.—On June 1st, at St. Cuthbert's Church, Earl's-court, London, Duncan James Caddy, M.B., second son of James Caddy, Esq. (late of H.M. Civil Service), to Florence, youngest daughter of William Clater, Esq., J.P., of The Laurels, Retford, Notts.

CARTER—BLAKISTON.—On June 1st, at St. James's Church, Brighton, H. F. Carter, M.D., to Miss Clara Blakiston.

HOWELL—HART.—On June 4th, at St. Leonard's Church, Streatham, Thos. Arthur Ives Howell, L.R.C.P. Lond., M.R.C.S. Eng., of Cleeve House, Wandsworth, eldest son of Thos. Symonds Howell, of the Old Vicarage, Wandsworth, to Frances Elizabeth Margaret, widow of Wm. Hamilton Hart, M.R.C.S. Eng., and elder daughter of E. P. Berthon, of Portswood, Southampton.

MCCAUSLAND—HELSHAM.—On June 1st, at the Parish Church of Wiggenhall St. Mary the Virgin, Norfolk, Albert Stanley McCausland, M.D., of Swanage, Dorset, son of the late Rev. R. McCausland, of Gloucester-place, Hyde-park, to Miss Emily Blunt Helsham, only daughter of Gustavus Helsham, Esq., J.P., of St. Mary's Hall, Norfolk.

MCNEAL—VIVIAN.—On June 1st, at the Wesleyan Church, South Norwood, James McNeal, L.R.C.P. Lond., M.R.C.S., of South Norwood-hill, to Ada Louisa, daughter of the late C. T. Vivian, of South Norwood.

NASH—RUSSELL.—On June 1st, at Holy Trinity, Milton-next-Gravesend, Charles Nash, L.R.C.P., of Horndean, Hants, to Constance, eldest daughter of J. Russell, Esq., J.P., Glenthorne, Gravesend.

OSBURN—CLARKSON.—On June 2nd, at St. Andrew's, Ashley-place, Harold Burgess Osburn, M.R.C.S., D.P.H., of Bagshot, Surrey, second son of Commander Francis Osburn, R.N., to Mabel, sixth daughter of Captain Clarkson, of Ashley-gardens, S.W.

ROSS—MILLBOURN.—On June 1st, at the Parish Church, Sutton-at-Hone, Alfred John Ross, M.D., Scarborough, to Isabel Millbourn, eldest daughter of J. T. Millbourn, Esq., Hawley, Kent.

WILSON—SANDERSON.—On June 2nd, at Holy Trinity Church, Hastings, Archibald Scarlyn Wilson, M.A., M.B., D.P.H. Cantab., St. Leonards-on-Sea, to Sybil Mary, youngest daughter of the Rev. R. E. Sanderson, D.D., Canon Residentiary of Chichester, and Vicar of Holy Trinity, Hastings.

DEATHS.

COOKE.—On June 2nd, at Warrior-square, St. Leonards-on-Sea, John Cooke, Esq., M.D., aged 55.

DAVIES-COLLEY.—On June 3rd, at Newton, Chester, Thos. Davies-Colley, M.D., J.P., in his 81st year.

DYMOCK.—On April 29th, at his residence, at Malabar-hill, Bombay, William Dymock, Brigade Surgeon, Retired, late Principal Medical Storekeeper to the Government, eldest son of the late Rev. T. F. Dymock, Rector of Hatch Beauchamp, Somerset, aged 59.

EDWARDS.—On May 31st, at his residence, 98, Gloucester-crescent, Hyde-park, W., Thos. Edwin Edwards, L.R.C.P. Lond., M.R.C.S. Eng., aged 64.

GOODRIDGE.—On May 7th, on his homeward voyage from Australia, Edward William Gostwyck Goodridge, Surgeon-Superintendent in the Queensland Government Emigration Service, second son of the late John Octavius Goodridge, Surgeon R.N., of Child Okeford Dorset, aged 37.

KERSHAW.—On June 2nd, at Eastfield, Farnworth, Bolton-le-Moors, aged 10 years, Margaret Alice (Daisy), youngest child of Alfred Kershaw, L.R.C.P.I., and M.R.C.S., and the late Mary Alice Kershaw. Friends will kindly accept this intimation.

STORY.—On June 2nd, at his residence, Westbourne-terrace-road, John Story, M.R.C.S., in his 84th year.

TEMPLETON.—On June 2nd, at Boscombe-road, Shepherd's-bush, W., at an advanced age, Robert Templeton, M.D., F.R.C.S.I., Deputy Inspector-General, late Royal Artillery.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, June 13.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. Stanford Morton: Ocular Injuries.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Cardio-Vascular System.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Isolation Hospitals.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. W. Watson Cheyne: The Treatment of Surgical Tubercular Diseases.

NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland-street, W.).—5 P.M. Mr. F. R. Fisher: Paralytic Deformities, Club-foot, &c.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Dr. F. W. Hewitt: The Anæsthetic Effects of Nitrous Oxide administered with Oxygen at ordinary atmospheric pressures, with Remarks on 750 cases. Casual Communications by Mr. A. Pearce Gould, Mr. J. Newland-Pedley, Mr. J. Smith Turner, Mr. David Hepburn, Mr. S. J. Hutchinson, and Mr. F. Canton.

Tuesday, June 14.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Black-friars: 4 P.M., Dr. Payne: Varieties of Alopecia.—Bethlem Hospital 2 P.M., Dr. Percy Smith: Insanity with Syphilis.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. A. W. Mayo Robson: Two cases of Pylorectomy and one of Jejunostomy.—Mr. Lawson Tait: On the alleged occurrence of Ovarian Pregnancy, being an explanation of some cases which have been published as belonging to this variety of Ectopic Gestation.—Mr. W. G. Spencer: Amputation in Diabetes Mellitus.

Wednesday, June 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Pulmonary Phthisis in Children. Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Intra-ocular Tumours.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. W. Watson Cheyne: The Treatment of Surgical Tubercular Diseases.

ROYAL METEOROLOGICAL SOCIETY (22, Great George-street, Westminster).—7 P.M. Mr. F. C. Bayard: English Climatology, 1881-1890. Mr. William Ellis: The mean temperature of the Air on each day of the year at the Royal Observatory, Greenwich, on the average of the fifty years, 1841 to 1890.

ROYAL MICROSCOPICAL SOCIETY.—Meeting at 8 P.M.

Thursday, June 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Mr. Bernard Pitts: Hernia in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: Muscular Atrophies.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Woakes: Vertigo.

NEUROLOGICAL SOCIETY OF LONDON (National Hospital, Queen-square, W.C.).—8.30 P.M. Dr. Savile: Hysterical Rachialgia and Vaso-motor Disturbance in a Man aged sixty Cured by Massage and Isolation.—Dr. Bastian: Case of Unilateral Disseminated Sclerosis; Dr. Buzzard: Multiple Neuritis following Influenza.—Dr. Hale White: Case of Lead Poisoning, with a peculiar form of Unilateral Paralysis of the Palate. And other cases.

Friday, June 17.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Pulmonary Phthisis in late Adult Life.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Erysipelas and Suppuration (Streptococci)—Charing-cross Medical School: 8 P.M., Dr. Amand Routh: Uterine Hæmorrhage.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. W. Watson Cheyne: The Treatment of Surgical Tubercular Diseases.

Saturday, June 18.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr Percy Smith: Insanity with Organic Brain Disease

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 9th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 3	29·92	S.W.	59	52	121	70	52	10	Cloudy
,, 4	30·09	S.W.	58	55	118	67	49	..	Bright
,, 5	29·78	S.W.	60	56	116	69	53	·10	Cloudy
,, 6	30·17	N.W.	64	58	124	77	52	·22	Cloudy
,, 7	30·38	E.	58	54	112	72	54	—	Overcast
,, 8	30·41	E.	56	52	113	74	50	—	Hazy
,, 9	30·27	S.E.	67	60	120	77	55	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

ASSAULT ON A MEDICAL MAN BY A RECTOR.

ON Mr. Tronson taking out a summons against his rector, the Rev. John Charter Blackmore, for an assault, which resulted in the defendant having to pay a fine of 40s. and costs, the rev. defendant is alleged to have threatened, after the hearing of the case, to punish Mr. Tronson with the most severe "boycotting" in the parish of which he is not only rector but lord of the manor. It is unusual to see in rectorial minds such high tempers; but we must not judge them too seriously, or take the threats they lead to too literally. We trust that by this time the feelings which generally dominate Christian ministers have reasserted themselves in the rev. gentleman's mind.

Anxious.—Our correspondent must judge for himself in the light of the case he refers to and the rules and reports of the General Medical Council which we published last week.

Sinapis.—Our correspondent should apply to the Registrar of the General Medical Council.

Mr. Gustav Ernest.—In THE LANCET of May 7th, 1892.

MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—As a medical officer connected with a Medical Aid Association, permit me to ask a question arising out of the report of a case heard before the Medical Council, as reported in THE LANCET of June 4th. Is it lawful for me to accept a salary in lieu of services rendered to one of these associations, and at the same time be cognisant of the fact that the said association converts a portion of the income received owing to my services to its own private use? This is a serious question, affecting the interests of very many like myself, and it is well that a clear understanding should exist. There is not the slightest shadow of doubt that many of these associations are carried on for profit, and the system seems to be daily increasing, one of the evils, I presume, of the overcrowding of the profession, because if there were not very many ready to accept these appointments, the abuse could not very well flourish. Medical officers, as in my own case, are generally men without capital, and accept these appointments in many cases "as a means to an end." The question arises, Is there any risk by so doing? In looking through the annual reports of these associations, there are many striking things to be observed. I shall take one or two, which may be regarded as typically illustrative of many. In that of the —— Association for 1892, a copy of which I enclose, I find that the committee of management pay themselves an annual stipend of £30, although it is generally understood that all committees are of an honorary character. The secretary's, treasurer's, trustees', and auditors' annual salaries and expenses amount to £70. There is for purchase of land £550 &c. Where does the money come from for all these items? Simply from the money earned through the services of the medical officers, and which, I contend, ought legally to belong to them after the working expenses of the Association are defrayed. Although the income of this particular Association exceeds £1800 per annum, how much do the medical officers receive? The former medical officer, who resigned last September, had, after five years and a half's service, an annual salary of £250. His successor only receives £200. The former, in addition, was allowed 10s. 6d. for each midwifery case attended. His successor has to submit to the humiliating indignity of having 5s. of his midwifery fee for every case attended collared and turned into the general fund of this flourishing Association. In —— I find from the annual report the committees help themselves in like manner. In some of the associations they claim all the midwifery fees earned by the medical officers. In —— and a few others they seize half. Now, I wish to know, Do medical officers to these associations, who in many instances (like my own case) are victims to circumstances, and cannot very well help themselves, run any risk in holding these appointments, which enables unqualified persons to convert money earned by medical practitioners into other channels of profit? As regards the class of members who join these associations, I am well aware that the system is much abused. I am, Sirs, yours truly,

June 6th, 1892. A MEDICAL OFFICER.

TREATMENT OF CONVULSIONS IN CHILDREN.

To the Editors of THE LANCET.

SIRS,—I wish to call the attention of the readers of THE LANCET to a method of treating convulsions which I devised some fifteen years ago, and which has been employed by me since that time with most satisfactory results. It is the administration of enemata of chloral hydrate. When summoned to one of these cases, I take with me a 1½-oz. bottle containing sixty grains of chloral hydrate dissolved in water, and a small glass male syringe, which holds two drachms; I prefer that the nozzle of this shall have been shortened and rounded by heating in the gas or spirit lamp. As the child lies on the nurse's lap, it is turned on one side, the syringe introduced into the rectum, and one, two, or three drachms of solution injected, according to age. A child between one and two years old will take one drachm, one three or four years old will take two drachms. When withdrawing the syringe, press the buttocks firmly together to prevent the solution escaping, and keep up this pressure for about five or seven minutes, by which time the convulsions will have greatly moderated—they generally cease altogether within ten minutes. I find that a solution of this strength causes no irritation. I have tried the same hypodermically, but with less success, and parents object to the repeated punctures which are necessary for injecting the required quantity. In no case has any evil result happened in my experience.

It has always appeared to me that the ordinary treatment is very feeble in these cases, for it is impossible to get the child to swallow any medicine while the convulsions are going on, and warm baths are of very doubtful service, besides being tardy in their action, while the treatment described above is simple, rapid, and certain. While the enema is being retained various necessary particulars can be ascertained with a view to future treatment, but it appears to me that in these cases the first thing to do is to stop the convulsions.

I am, Sirs, yours faithfully,

Gateshead, June, 1892. A. WOOLSEY BLACKLOCK, M.D.

"THE USUAL BOND AND FRIENDLY SOCIETIES' AGREEMENTS."

To the Editors of THE LANCET.

SIRS,—In reply to "Assistant Medical Officer," allow me to say I think it would be interesting to the profession at large were this subject of bonds finally settled, as there seems to be so much doubt in the matter. I am of opinion that no bond can be enforced without the prohibited time is in proportion to the amount paid over and above the ordinary salary. Simply, salary is no "consideration" (which is one of the essentials to the validity of a bond). THE LANCET would be conferring a great favour on the profession were it to set this vexed question at rest. If a penalty is enforced (say, £500), can that be claimed for every offence against the bond or only once? Bonds seem to destroy the liberty of a subject. Surely a man cannot be prevented from practising his profession if he is qualified so to do, unless he has been paid very handsomely by another man not to do so. Hoping others will take this subject up, I am, Sirs, yours truly,

June 8th, 1892. ASSISTANT.

BENZONAPHTHOL.

F. W. N.—Dr. Le Gendre, according to the *Gazzetta degli Ospedali*, has frequently applied benzonaphthol in typhlitis, in appendicitis, in colitis (simple and dysentiform), and, generally speaking, in conditions of the lower tract of the intestine in which excessive or abnormal fermentations have been set up. In the adult he has found good results from the exhibition of doses gradually increased from three to five grammes—the antisepsis obtained being equivalent to that induced by a considerable dose of naphthol and benzoine given separately.

R. H.—No person may, under a penalty of £5, act as assistant to an apothecary in compounding and dispensing medicines without first passing an examination and obtaining a certificate from the Apothecaries' Company.

Mr. J. Mars—We think our correspondent can claim. The institution of which he is a surgeon is not one of those the officers of which are excluded from receiving fees for inquests.

"THE USE OF PESSARIES."

To the Editors of THE LANCET.

SIRS,—The letter of Mr. R. J. Kennedy in THE LANCET of June 4th reminds me of two cases of "retained pessary"—if I may use such a term—which have occurred in my practice during recent years.

The first case was that of an aged woman, who suffered from a most horribly fetid vaginal discharge; so much so that it affected her general constitutional condition. Upon making a vaginal examination I discovered a spherical boxwood pessary, of antiquated construction, encrusted with the products of secretion, and hardly recognisable; it was removed with some difficulty. According to the patient's statement it had been in position for a considerable number of years.

The second case, which also occurred in an aged woman, was if anything more remarkable. A foreign body was found in the vagina, which eventually proved to be a wire pessary covered with indiarubber. At first all attempts at removal failed. I then discovered that it had at some period of its retention ulcerated its way through the mucous membrane of the vaginal wall, which had healed over the pessary, thus effectually fixing it by a membranous band. Removal was effected by tearing through the band with the thumb nail. Owing to the vascularity of the parts, and the probability of hæmorrhage, I deemed the knife less suitable for the operation.

I am, Sirs, yours faithfully,

Clare, Suffolk, June 6th, 1892. EDWARD A. PIGGOTT.

To the Editors of THE LANCET.

SIRS,—The letter of your correspondent, Mr. R. J. Kennedy, in THE LANCET of the 4th inst., reminds me of a case I admitted some years ago into the Richmond Hospital, S.W., under the care of Mr. Bateman. In this instance the patient, an elderly and cachectic-looking woman, came to the hospital complaining of a very offensive discharge and complete inability to retain her urine. Before making a vaginal examination I thought it was a case of cancer which had caused by ulceration a utero- or vagino-vesical fistula, but a digital examination at once revealed the stem end of a Zwancke's pessary completely encrusted with lithates. The winged end, also similarly encrusted, had ulcerated through into the bladder and was removed by Mr. Bateman under an anæsthetic. This patient stated that something had been placed there also fourteen years previously, and no directions had been given as to the necessity of its ever being removed.

I am, Sirs, yours faithfully,

Ilfracombe, June 8th, 1892. ARTHUR L. COPNER.

CORONERS' JURIES.

To the Editors of THE LANCET.

SIRS,—The following case, in which I had to give evidence at an inquest, appears to me to be instructive from many points of view.

A baby had been ill with measles, the rash having been out for three days before its death. I was sent for to see it about half an hour before the child died. In the evidence the mother stated that she had given the child saffron tea and brandy, and had not thought it necessary to call in a doctor; that she had noticed the child to have gone "blind" the day before its death; and that on the day it died the child had been breathing heavily and quickly. After hearing her evidence, one of the jury remarked that he considered the mother had done everything that could be expected of her, and the rest concurred, and expressed themselves as "perfectly satisfied." No further questions were asked.

In the light of such cases one cannot be surprised at the high mortality there is from measles; and when coroners' juries take upon themselves to stamp with approval the "brandy and saffron" treatment of the complaint, what chance is there that a medical man will ever be called in to see such cases in the poorer districts, excepting when a certificate of death becomes inevitable? Coroners' juries have been very energetic of late in censuring medical men and their unqualified assistants; but surely the harm done by the latter is infinitesimal compared with the incalculable harm inflicted on helpless babes and children by such verdicts. I am, Sirs, yours faithfully,

Mile-end-road, E., June 7th, 1892. W. F. GRANT, M.D.

"BONONIA DOCET."

OUR columns have recently indicated the advance effected by the Bologna school on the Pasteurian prevention of rabies; and it may be useful to recapitulate the pathological researches by which the experiments that led up to that advance were suggested if not inspired. For some time the Italian medical schools, principally those of Turin and Bologna, had been on the track of the "tetanigenous bacillus," with distinctly positive results. The therapeutic application of these, however, attracted most attention at Bologna, where Professor Tizzoni, assisted by a lady pathologist, "la dottoressa Cattani," set himself to render animals proof against the virus of tetanus. They began by isolating the liquid produced by the tetanic bacilli; they then examined the effects it caused in the animals in which it had been inoculated; and, finally, ascertained that in consequence of these injections the said animals acquired a resisting power against repeated inoculations of the tetanigenous virus. The substance to which this immunity was attributable they then separated from the serum of the blood, and found it to be endowed with characteristic properties. In fact, after inoculation with this matter, it was no longer possible to transmit the infection to animals by means of the blood or the urine of another animal that had died of tetanus, while the infection in an animal which had not been thus inoculated never failed to be followed by marked tetanic spasms, resulting fatally. In other words, the "antitoxine," when introduced into a tetanigenous circulation, deprived the latter of its toxic power. These experiments, verified and confirmed over and over again, Drs. Tizzoni and Cattani felt justified in repeating on the human subject; and they can now point to a *catena* of cases of tetanus—one of them a case in which amputation had already been performed—all of which, thanks to the injection of the "antitoxine," were completely cured. Further experiments made still more recently by the Bolognese pathologists have demonstrated how the immunity thus imparted to animals, rabbits and rats, becomes hereditary, and may be transmitted to their young, the latter, when born of parents rendered proof against tetanus, having been found to resist without evil effects of any kind tetanigenous inoculations to which the young of parents who had not been thus made virus-proof succumbed invariably. These results, we learn from Professor Tizzoni, led up to the advance on the Pasteurian treatment of rabies already described, and form a necessary link in a pathological and therapeutic chain reflecting the highest credit on Bologna, and fraught with developments of which it is hard to foretell the limit.

Mr. F. W. Langston Day (Reedham, Norfolk) should consult our Students' Number (Sept. 5th, 1891, page 581), where he will find very full particulars on the subject with regard to which he requires information.

PAROCHIAL AND COUNTY MEDICAL OFFICERS IN SCOTLAND.

To the Editors of THE LANCET.

SIRS,—I should be greatly obliged if you can answer the following queries in an early number of THE LANCET. Both apply to Scotland.

1. Is a parochial medical officer in Scotland entitled to extra fees for surgical operations on paupers—e.g., reducing a fracture of the radius? In the case in point no reference is made in his agreement with the parochial board to such cases. 2. A medical officer of health was appointed for a county (by the County Council), who does not hold a registrable qualification in sanitary science. He agreed to obtain such a diploma within a reasonable time, and was appointed on this understanding. Will he have to be reappointed by the new Council after its election in December next? And, if so, is he eligible in the event of his not having obtained a diploma in public health prior to that date?

I am, Sirs, your obedient servant,

May 24th, 1892. DELTA.

*** 1. In parishes which participate in the medical grant the salary covers attendance on paupers in every form. Fees in lunacy are, of course, additional. In parishes which do not participate the Board may make with their medical officer any contract they please as to special fees. The cost of medicines and medical appliances is usually kept separate, though not invariably.—2. The election of the new County Council in December cannot affect the legal tenure of office of the officials. Our correspondent does not state whether the "understanding" formed part of the written agreement, or whether the "reasonable time" was defined. If a conditional appointment were made by the County Council and sanctioned by the Board of Supervision, then, in the event of the conditions not being fulfilled, it would be open to the Council to approach the Board for removal of the officer under Section 54 (4) of the Local Government (Scotland) Act; and it would also be open to the Board to call the Council's attention to the matter, and to refuse, if it thought fit, to allocate to the Council part of the sum placed by Parliament at the disposal of the Board to aid in payment of such officers.—ED. L.

"AN APPEAL."

DR. JOHN LOWE asks to be allowed to acknowledge through THE LANCET the receipt of a subscription of £5 from "Anon.," and also of £3 3s. from Mr. T. Smith, F.R.C.S., in response to his letter under the above heading in our issue of May 14th (p. 1116).

Dr. M.—We are not prepared to condemn the use of the titles as mentioned by our correspondent, and he is not likely to be challenged for so using them in any court of law.

R. O. W.—The details given are not sufficient to form a basis of censure on a medical man.

A QUESTION OF FEE.

To the Editors of THE LANCET.

SIRS,—I should be obliged if you would give your opinion as to whether a fee is due to me from the guardians or not in the following case.

Yesterday I was called to see a man whom I found suffering from fracture of fibula (Potts' fracture). The man had no fixed abode, and the person with whom he was living applied to the relieving officer. The relieving officer sent me an order to treat the case, and at the same time got a certificate from me stating that the patient was able to be removed to the workhouse. I then went down, after getting the relieving officer's order, put on a splint &c., and the man was shortly afterwards removed to the workhouse. Now, the fee for treating such a case is £3. Am I entitled to this? Of course, if the man had had any fixed residence, I should have had to treat the case all through, and then there could be no question about the matter. If I am not entitled to the fee, it seems hard that I should have to diagnose the case, fix it up ("set it")—these two things being the essence of the treatment,—and then have nothing for it, not even the splint and bandages returned. It will, of course, be understood from the foregoing that I am district medical officer.

I am, Sirs, yours faithfully,

June 7th, 1892. CONSTANT READER.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. A. G. Auld, Glasgow; Mr. Branthwaite, Twickenham; Messrs. Bishop and Sons, London; M. Berthier, Paris; Mr. C. F. Beadles; Mr. Lennox Browne, London; Mr. Burrows, London; Messrs. Bates, Hendy, and Co., London; Dr. Sidney Butor, Gt. Berkhamsted; Surgeon J. Milford Bassett, M.D.; Mr. Broadrup, Charlesville; Mr. Cave, Worcester; Mr. E. A. Culpeck, London; Mr. Collins, Birmingham; Messrs. J. and A. Churchill; Mr. J. Coutts; Mr. Thornton Clowes, Reading; Mr. Percy Dunn, London; Messrs. Dowsett and Co., London; Mr. F. W. Langston Day, Norfolk; Mr. Dunston, Cornwall; Dr. Drewitt, London; Dr. Evans, Beaufort; Mr. Ewart, Chapel Ash; Dr. Felkin; Mr. Forbes, Tunbridge Wells; Mr. Greenish, London; Mr. Gurner, London; Messrs. J. and H. Grace, Bristol; Mr. A. W. Gerrard, London; Mrs. Gann, Hayling Island; Dr. G. M. Gould; Mr. R. Harrison Gilpin, Evesham; Dr. J. B. Harris, West Norwood; Mr. Harmer, Tunbridge; Messrs. Johnson and Co., London; Rev. Mr. Jennings, Cheshire; Messrs. Knight and Co., London; Mr. Kapardaki, Greece; Mr. Lane, London; Dr. J. S. Lynch, Walsall; Messrs. Livingstone, Edinburgh; Messrs. Laidlaw and Sandemann, Galashiels; Dr. Lowson, London; Mr. Lintock, Church Stretton; Dr. K. MacLeod, Edinburgh; Mr. H. W. Maunsell, South Kensington; Mr. Moore, South Shields; Messrs. Merryweather and Co.; Mr. Moore, Liverpool; Mr. Morris, Swansea; Dr. E. Addison Marsh; Mr. Marks, New York; Messrs. Maclay and Co., Glasgow; M. Alcan, Paris; Dr. C. Oakes; Mr. R. O'Callaghan, Dublin; Mr. E. T. Piggott, Clare; Mr. Provand, Westminster; Mr. Pollard, Wakefield; Messrs. Root and Co.; Mr. R. B. Rentoul, Liverpool; Dr. R. Lawton Roberts, Ruabon; Messrs. Robinson and Sons, Chesterfield; Mr. H. R. Rowell, Houghton-le-Spring; Mr. Swan, Batley; Messrs. Steel and Jones, London; Mr. E. O. T. Steell; Dr. Standke, Bremen; Dr. J. C. Steele, London; Dr. S. M. Sternberg, U.S.A.; Mr. Stenhouse, Glasgow; Mr. Stockwell, Bath; Messrs. Shanks and Co., London; Colonel Tully, London; Dr. W. Williams, Dolgelly; Mr. W. Roger Williams, London; Mr. White, London; Messrs. Wyleys; Dr. Hugh Woods, London; Dr. Williams, London; Mr. Walker, Stenhousemuir; Mr. Whitley, Truro; Alpha, Chesterfield; Secretary, Wolverhampton and Staffs General Hospital; Veritas, London; Secretary, Brighton Hospital for Women; General Hospital, Birmingham; Old World Advertising Co., London; Coedmor, London; Maltine Manufacturing Co., London; Dr. L., London; M. C., London; A. W. H.; Surgeon R.N.

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NEWSPAPERS.—*Liverpool Daily Post, Bristol Mercury, Rangoon Times, Dundee Advertiser, Leeds Mercury, Scottish Leader, Glasgow Herald, Law Journal, Yorkshire Post, Morning Call (San Francisco), North British Daily Mail, Scotsman, Freeman's Journal, Sussex Daily News, Manchester Courier, Irish Times, Newcastle Journal, Local Government Chronicle, Manchester Guardian, City Press, Surrey Advertiser, Hertfordshire Mercury, Builder, Windsor and Eton Express, Reading Mercury, Architect, Insurance Record, Weekly Free Press and Aberdeen Herald, Windsor and Eton Gazette, Mining Journal, Eastern Morning News (Hull), Jewish Chronicle, Cape Argus, Montreal Daily Herald, Oban Times, Morning News (Belfast), Pullen's Kent Argus, Phonetic Journal, English Mechanic and World of Science, Hastings and St. Leonards Observer, Sunday Times, Local Government Journal, Le Temps (Paris), Barbadoes Herald, Loughborough Herald, People, Sunderland Herald, Hastings News, Daily News, Leicester Post, &c.*, have been received.

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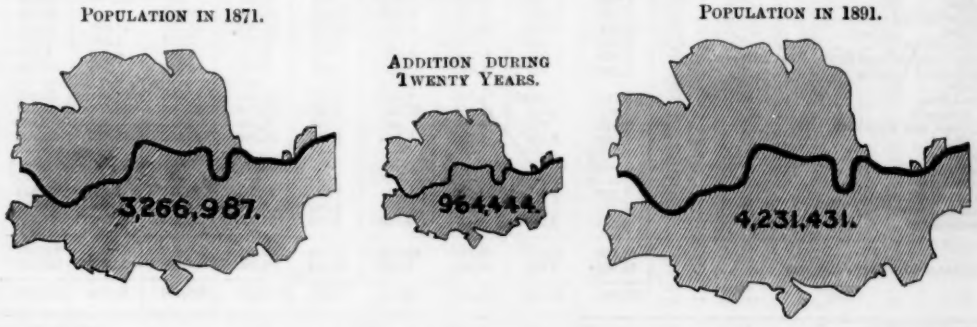
METROPOLITAN HOSPITAL SUNDAY FUND.

"THE LANCET" SPECIAL SUPPLEMENT.

Published in aid of the Appeal to be made on Sunday, June 19th, 1892.

THE GROWTH OF HOSPITAL WORK IN LONDON.

ONCE more the return of the season at which the Hospital Sunday Fund collection is annually made in the various places of worship throughout the metropolis demands from us a restatement of the case which we have now for many years past submitted under various aspects to the charitable public. If the work in question were less extensive or less multifarious than it is there might be a difficulty in avoiding mere repetition in an appeal so frequently renewed, but in fact the topic is not easily exhausted, and the particular phase of it to which we propose on the present occasion to draw attention is one that has been suggested by the circumstance that the publication in part of the census returns for 1891 enables us to make an instructive comparison between the London of to-day and that of twenty years ago, when the Hospital Sunday movement took its rise. It would be difficult in any other way to give so striking a view of the great work actually accomplished by means of the Fund, and of the still greater work which awaits accomplishment by the same means.



PRIVATE CONTRIBUTIONS AND THE FUND.

It may be well before proceeding to the more statistical part of our subject to deal with a criticism frequently passed upon the Sunday Fund collection, and usually received with an acquiescence which it ought not to command. The criticism is that an organised effort like that in question has a tendency to diminish the income received by the hospitals from private subscriptions and donations, and thus to take away with one hand what it gives with the other. This is so plausible a proposition that few people have any disposition even to call it in question, and it passes current on the strength of being almost self-evident. But as it is not quite self-evident it may be called in question, and we have, with the object of putting it to proof, obtained from such of our hospital correspondents as have been able to supply them copies of their several accounts for the year 1872 or some date thereabout. A comparison of these statements with the corresponding figures for last year does not confirm the dictum. It will be easily understood that the materials with which we have been supplied are very meagre, since reports twenty years old are naturally rare even in the offices from which they were originally issued. But in almost every instance in which the comparison can be made it turns out that the income from annual subscriptions and from donations is greater now than it was at the earlier date, and that these sources of income, instead of being strangled by the Sunday Fund collection, have continued to thrive side by side with it; so that public interest in particular institutions, as manifested by subscription lists, is stronger and more widespread now than ever. We do not wish to generalise too widely from the comparatively small basis of comparison, which is all that we have been able to secure; but we are at least entitled to say that, so far as the ascertainable facts are concerned, it seems to be a sounder conclusion that this annual appeal has stimulated public charity than that it has diverted the benefactions of the charitable into a new channel. The old streams flow in their old beds and with increased volume, and the new is so much additional power brought to bear upon the problems to which in our vast city sickness and accident give rise.

TWENTY YEARS' GROWTH OF LONDON.

The establishment of a fund which produces upwards of £40,000 a year has undoubtedly made a magnificent addition to the charitable resources of the metropolis, and if it were—as it certainly is not—the only useful outcome of the Hospital Sunday movement, it would abundantly justify the foresight of the promoters and the zeal of those who have supported the annual collection. But great as this achievement is, it is but small in comparison with that overwhelming phenomenon—the growth of London. In 1871 the metropolis had 419,642 occupied houses and a population of 3,266,987 inhabitants. In 1891 the houses had become 557,134 and the inhabitants 4,231,431. Such

figures convey but little information, because by reason of their magnitude they produce no definite impression. A better apprehension of the fact may be arrived at by establishing comparisons with smaller places. Thus the mere addition to the population of the metropolis within the period covered is equal to the aggregate population of Manchester, Leeds and Norwich taken together.

In order to present this astonishing phenomenon of the growth of London in a more intelligible form to our readers we have caused a series of small maps of the London County to be prepared which make manifest to the eye the proportions between the London population as it was in 1871 and as it is at the present time. These maps have been carefully drawn to scale, the scale of every map being such that its area is proportioned to the population which it represents. Thus the first map is drawn to a scale which gives a little less than eight miles and a quarter to the inch, and it has an area of slightly more than one and three-quarters square inches. The second is on the scale of just under fifteen miles and a sixth to the inch, with an area, therefore, slightly exceeding one-half of a square inch. The third is on the scale of seven and a quarter miles to the inch, and it has an area of two and a quarter square inches. The areas, therefore, are proportional to the populations represented, and enable the reader to judge at a glance of the relative magnitudes in question. It thus becomes much easier than by a mere perusal of provinces, and to settle according to their business or other requirements, but chiefly in the less crowded districts. Both these tendencies carry people to the suburbs, and hence a rapidly growing region lying about the margin of the map, where the vast development already considered is chiefly concentrated. In a word, London may be said to grow like the trunk of a tree. If the centre represents the heart wood, and the circumference the bark, it will be found that between the two there is a region of great functional activity, where a rapid deposit of new material is continually taking place. The analogy must not, however, be pressed too hard for it soon breaks down. Thus the region of new formation is by no means a narrow belt evenly distributed all around the central core. On the contrary, its distribution is exceedingly irregular. At one place, for example, it comes much nearer to the centre than elsewhere; at another place it will be carried much farther afield. To enable our readers to judge for themselves of the complexity of these movements, we have prepared a fourth map, showing the way in which the growth of population, represented by the smallest map in the above series, has been distributed over the ground.

In this map the outline of No. 3 is filled in by tracing the boundaries of the various parishes—or rather groups of parishes,—the grouping being that adopted in the census reports. They are divided under four heads, as follows:

LIST No. I.—GENERAL HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital, expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
Charing-cross	6,112	1,083	3,043	3,432	7,508	21,178	15,041	6,137	21,178
French	—	—	—	—	—	—	—	—	—
German	6,512	694	1,992	733	161	10,092	8,702	1,390	10,092
Great Northern Central	[3,026	322	413	1 319	1,764	6,844	5,887	957	6,844
Guy's	—	—	—	—	—	—	—	—	—
Italian	1,205	98	2,016	—	325	3,644	858	2,786	3,644
King's College	7,508	1,463	1,394	6,408	8,481	25,554	19,145	6,409	25,554
London	15,924	3,250	23,850	6,679	25,142	74,845	57,755	17,090	74,845
Metropolitan	3,778	433	654	795	3,651	9,311	7,712	1,599	9,311
Miller Hospital and Royal Kent Dispensary	1,902	281	704	4,645	616	8,148	3,728	4,420	8,148
North-West London	1,690	313	1,995	20	495	4,513	3,325	1,188	4,513
Poplar	—	—	—	—	—	—	—	—	—
Royal Free	3,115	975	1,603	2,088	3,281	11,032	11,032	—	11,032
St. George's	8,679	1,625	15,157	27,229	4,656	57,346	31,755	25,591	57,346
SS. John and Elizabeth	1,019	130	766	184	359	2,458	2,271	187	2,458
St. Mary's	7,799	2,220	2,785	5,256	4,846	22,906	22,650	256	22,906
Seamen's	—	—	—	—	—	—	—	—	—
Middlesex	—	—	—	—	—	—	—	—	—
Tottenham	—	—	—	—	—	—	—	—	—
University College	7,503	—	4,776	7,320	3,745	23,344	20,192	3,152	23,344
West London	4,472	607	1,357	—	1,966	8,402	7,408	994	8,402
Westminster	3,802	1,083	2,497	3,120	3,726	14,228	13,435	793	14,228
	84,346	14,577	65,002	69,198	70,722	303,845	230,896	72,949	303,845
Estimated to supply omissions	34,000	5,980	38,800	7,720	21,800	108,300	87,600	20,700	108,300
Total	118,346	20,557	103,802	76,918	92,522	412,145	318,496	93,649	412,145

numbers to realise the astonishing growth which has taken place and is still going forward within the metropolis, and, by inference, to judge how rapidly—though without consciousness of the fact on our part—the problem of providing for the sick poor grows and accumulates upon our hands.

DISTRIBUTION OF THE POPULATION.

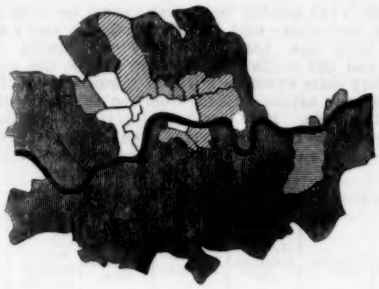
It is not only the great increase of population within the metropolis which gives rise to an ever-growing demand for new hospital accommodation. The problem is aggravated by the exceptional growth of particular places within the metropolitan area. The space represented in our map is of pretty wide extent, including something like 120 square miles. There is therefore room for a considerable movement of population within these limits, and such movements necessitate corresponding movements and developments on the part of the hospitals; for it is only, for example, to a very limited extent that a hospital in Poplar can serve the needs of Fulham, or one in Hampstead supply medical aid to the residents in Woolwich. Now, broadly speaking, two movements may be traced in the population of London. First, there is a tendency to leave the central districts and settle for residence in the outskirts; and next, there is a tendency on the part of new comers to crowd in from the (1) Parishes that have suffered loss of resident population; (2) parishes that have remained stationary; (3) parishes that have increased in a less proportion than the whole of London; (4) parishes that have increased in a greater proportion than the whole of London.

The second of these heads has been taken to cover all cases in which the loss or gain, whichever it happened to be, during the twenty years did not exceed 10 per cent. Losses, therefore, have only been reckoned when the falling-off exceeds this proportion, and gains upon a corresponding rule.

To portray this classification the engraver has employed four tints. Parishes of the first group are left white, parishes of the second group are lightly shaded. Those of the third group are of an intermediate tone, while the fourth class is represented by his strongest colour. With this explanation in mind, the reader will gather more information upon this important topic from a glance at the map than from a column of mere disquisition. But even the map gives a very inadequate impression of the vast diversity of facts. Thus we have Lambeth and Battersea both represented by the same depth of tone, because both experienced large increases of population during the period in question. In Lambeth, however, the increase fell short of 50 per

cent., whereas the population of Battersea was very nearly trebled. Other instances of enormous growth are Wandsworth, Camberwell, and Hampstead, in all of which places the population was more than doubled, and Fulham,

DISTRIBUTION OF THE ADDED POPULATION.



where, as in Battersea, the increase alone was equal to nearly twice the original population. It will easily be understood how greatly the problem of providing medical relief is complicated by such vast sporadic growths of population.

CHARACTER OF POPULATION.

The instances just cited serve to bring into view another condition of the problem not less important or less worthy of consideration than those already referred to, for it is plain, without discussion, that the necessities of the various new localities—if we may so describe the principal seats of this remarkable urban growth—in respect of hospital accommodation, will vary greatly; hardly less, indeed, than do the several quarters of the town among themselves. Hampstead and Camberwell may be compared by way of illustration. The northern suburb is almost entirely residential; the southern is largely industrial. The necessities of the one are not to be compared with those of the other; and for a just estimate of the requirements of a district, it is, therefore, as clearly necessary that the occupations and social position of its residents should be taken into account as that the residents themselves should be numbered, and their numbers compared from time to time. We gave our readers last year some account of the way in which the hospitals of the metropolis adapt their resources to the par-

LIST NO. II.—SPECIAL HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital, expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
City of London Hosp. for Dis. of the Chest	5,041	975	1,836	1,106	1,942	10,900	10,442	458	10,900
Hospital for Consumption	14,127	1,562	10,250	9,594	5,709	41,242	24,962	16,280	41,242
St. Peter's	1,624	—	2,331	—	—	3,955	3,194	761	3,955
North London Consumption	—	—	—	—	—	—	—	—	—
Royal for Dis. of the Chest	4,008	379	103	2,700	859	8,789	7,375	1,364	8,739
Royal National for Consumption	3,593	260	4,485	2,050	1,336	11,724	11,349	380	11,724
Alexandra for Children	1,661	217	134	600	1,336	2,612	2,270	342	2,612
Belgrave ,,	998	152	32	210	202	1,594	1,420	174	1,594
Cheyne ,,	2,134	115	640	5,010	2,133	10,032	2,269	7,763	10,032
East London ,,	7,091	574	234	1,339	1,543	10,781	7,395	3,386	10,781
Evelina ,,	3,354	520	2,290	90	338	6,592	6,218	374	6,592
Home for	—	—	—	—	—	—	—	—	—
Home and Infirmary for Sick Children	707	152	670	—	358	1,887	1,694	193	1,887
Home for Incurable	484	81	1,046	—	73	1,684	1,221	463	1,684
Home for Sick Children & S. Lon. Dis. for Women	—	—	—	—	—	—	—	—	—
Hosp. for ,, ,,	8,338	823	2,288	4,335	1,953	17,737	12,377	5,360	17,737
North-Eastern Hospital for Children	4,591	368	874	—	3,660	9,433	6,059	3,374	9,433
Paddingtn.-gr. ,, ,, ,,	3,152	170	294	360	399	4,375	2,574	1,801	4,375
Victoria ,, ,, ,,	4,479	410	509	277	202	5,877	5,844	33	5,877
"The Vine" ,, ,, ,,	554	38	305	—	108	1,005	983	22	1,005
British Lying-in ,,	—	—	—	—	—	—	—	—	—
City of London ,,	475	76	2,782	—	293	3,626	3,626	—	3,626
General ,,	575	76	2,354	—	3	3,008	3,008	—	3,008
Qn. Charlotte's ,,	—	—	—	—	—	—	—	—	—
Chelsea, for Women ,,	4,413	217	618	—	285	5,533	4,379	1,154	5,533
Hospital ,, (Wolverhampton)	532	—	10	—	352	894	426	468	894
,, ,,	2,494	455	1,141	8,088	9,308	21,486	6,701	14,785	21,486
Grosvenor ,, and Children	738	65	416	—	334	1,553	1,553	—	1,553
New ,,	1,688	141	932	—	116	2,877	2,875	2	2,877
Royal Hosp. for Children and Women	—	—	—	—	—	—	—	—	—
Samaritan Free	5,288	515	92	2,000	198	8,093	6,913	1,180	8,093
Cancer	3,946	542	16,963	9,655	3,194	34,290	9,890	24,400	34,290
London Fever	6,071	433	4,123	2,483	1,167	14,277	8,422	5,855	14,277
Gordon Hospital for Fistula	—	—	—	—	—	—	—	—	—
St. Mark's ,, ,,	927	119	1,051	652	263	3,022	2,651	371	3,022
National ,, ,, Dis. of Heart	1,550	108	430	686	596	3,170	2,076	1,094	3,170
Female Lock	—	—	—	—	—	—	—	—	—
Male Lock	—	—	—	—	—	—	—	—	—
Hosp. for Epilepsy &c.	877	87	748	220	620	2,552	1,850	702	2,552
National, for the Paralysed	—	—	—	—	—	—	—	—	—
West-end	—	—	—	—	—	—	—	—	—
Central London Ophthal.	1,442	54	214	—	164	1,874	841	1,033	1,874
Royal London ,,	2,603	—	9,138	1,300	419	13,460	6,333	7,127	13,460
Royal South London ,,	685	81	81	—	395	1,242	880	362	1,242
Royal Westminster ,,	1,642	87	410	516	229	2,884	2,235	649	2,884
Western ,,	401	—	291	—	109	801	540	261	801
City Orthopædic	1,341	65	397	—	2,914	4,717	1,328	3,389	4,717
National ,,	678	43	4,562	—	5,549	10,832	1,174	9,658	10,832
Royal ,,	1,252	—	670	100	183	2,205	2,205	—	2,205
Hosp. for Dis. of Skin	214	22	706	950	1,542	3,434	953	2,481	3,434
Cent. Lond. Throat and Ear	719	57	1,439	20	—	2,235	2,070	165	2,235
London Throat	349	—	619	—	52	1,020	944	76	1,020
Royal Ear	676	4	—	—	73	753	753	—	753
Hosp. for Dis. of Throat	3,287	—	117	125	3,730	7,259	2,525	4,734	7,259
London Homœopathic	—	—	—	—	—	—	—	—	—
London Temperance	5,009	402	869	680	539	8,249	8,170	79	8,249
The Dental	2,979	114	566	—	70	3,729	1,920	1,809	3,729
National Dental	—	—	—	—	—	—	—	—	—
	120,047	10,649	80,060	55,236	53,252	319,244	194,882	124,362	319,244
Estimated to supply omissions	12,600	3,069	8,000	2,431	1,200	27,300	24,700	2,600	27,300
Total	132,647	13,718	88,060	57,667	54,452	346,544	219,582	126,962	346,544

ticular needs of their several localities; it is, therefore, the less necessary to expatiate now upon the theme. Suffice it here to remark that what holds of the old localities holds also of the new. Every district has its local needs, and these local needs can only be supplied by local institutions, which are not only readily accessible by reason of their being local, but also adaptable for the same reason to the purposes which best subserve the interests of their neighbourhood.

THE CASE OF THE LONDON HOSPITAL.

These conditions are well illustrated in the history of what is now the largest hospital in the metropolis—that is to say, the London Hospital in Whitechapel. The parish of Whitechapel is one of those (lightly tinted in the map) in which the population has remained practically stationary, the numbers having, in fact, suffered a slight diminution from 76,500 in 1871 to 74,400 in 1891. But the hospital no less markedly out of proportion to those which are recorded in the immediately following years. At the present time the work of a normal year brings into the wards of the institution three-fifths as many again, and to the out-patient department nearly twice the number of patients who at the earlier date flocked to the doors of the hospital in a period of plague.

GREATER LONDON.

There is yet another fact which should be borne in mind in this connexion—that Greater London is really a larger area than the London County represented in our maps and our statistics. On every side of the municipal boundary there stretches a belt of suburbs not distinguishable save by artificial limits from the suburbs within the official bounds. How great this adjacent population is may be judged from the circumstance that the Metropolitan Police area, which includes the greatest part of this out-

LIST NO. III.—CONVALESCENT AND COTTAGE HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
Metropolitan Conval. Institution	4,613	704	485	950	4	6,756	6,465	291	6,756
Do. do. do., Bexhill-on-Sea	2,827	325	146	—	40	3,338	2,951	387	3,338
Bexhill-on-Sea Convalescent	—	—	—	—	—	—	—	—	—
All Saints ,,	4,950	585	767	1,120	3,038	10,460	6,496	3,964	10,460
Mrs. Gladstone's ,,	773	—	371	—	298	1,442	1,442	—	1,442
Hanwell ,,	—	—	—	—	—	—	—	—	—
Herbert ,,	1,041	43	723	109	43	1,959	1,415	544	1,959
King's College ,,	637	108	853	—	—	1,598	1,590	8	1,598
Mrs. Kitto's ,,	630	87	—	—	—	713	569	144	713
,, Marsham's ,,	—	—	—	—	—	—	—	—	—
Mary Wardell ,,	908	146	909	10	15	1,988	1,959	29	1,988
London & Brighton ,,	955	—	2,723	—	112	3,790	3,523	267	3,790
Morley ,,	—	—	—	—	—	—	—	—	—
Princess Frederica's ,,	523	43	3	—	—	571	450	121	571
Ramsgate ,,	—	—	—	—	—	—	—	—	—
St. Andrew's ,, Clewer	1,570	173	1,376	—	229	3 348	3,275	73	3,348
Do. ,, Folkestone	2,209	184	1,373	—	—	3,826	3,819	7	3,826
St. Barnabas ,,	—	—	—	—	—	—	—	—	—
St. Leonards-on-Sea ,,	1,303	—	276	—	683	2,252	1,581	771	2,252
St. Mary Magdalen ,,	406	—	363	—	105	874	848	26	874
St. Michael's ,,	1,125	49	281	—	16	1,471	829	642	1,471
St. John's ,,	798	—	454	—	255	1,487	990	497	1,487
Seaside ,,	3,581	—	124	—	382	4,087	3,250	837	4,087
Beckenham Cottage	—	—	—	—	—	—	—	—	—
Blackheath and Charlton Cottage	707	65	26	—	112	910	859	51	910
Burstead ,,	—	—	—	—	—	—	—	—	—
Chislehurst ,,	288	44	81	—	210	623	596	27	623
Eltham ,,	141	29	157	—	138	465	273	192	465
Enfield ,,	406	—	7	—	105	518	448	70	518
Epsom and Ewell ,,	512	—	211	—	235	958	884	74	958
Hatfield Broad Oak ,,	148	—	59	—	29	236	236	—	236
Reigate and Redhill ,,	508	58	161	250	50	1,027	759	268	1,027
Shedfield ,,	115	5	70	—	17	207	196	11	207
Sidcup ,,	205	9	86	—	35	435	398	37	435
Wimbledon ,,	—	—	—	—	—	—	—	—	—
Establishment for Gentlewomen	901	87	958	475	173	2,634	2,249	435	2,634
Hampstead Home Hospital	314	—	1,351	—	661	2,326	2,207	129	2,336
National Sanatorium	1,859	93	780	650	430	3.842	2,772	1,070	3,842
Royal Mineral Water Hospital	1,868	—	3,136	198	590	5,732	4,924	808	5,732
Royal Sea Bathing Infirmary	2,113	628	2,581	1,576	2,147	9,045	9,045	—	9,045
Invalid Asylum	434	78	333	20	213	1,078	1,068	10	1,078
Firs Home	1,578	33	388	343	343	2,685	1,483	1,202	2,685
St. Catherine's Home	877	54	69	—	276	1,276	816	460	1,276
	42,171	3,630	21,661	5,731	10,924	84,117	70,665	13,452	84,117
Estimated to supply omissions	2,000	380	700	620	400	4,100	3,700	400	4,100
Total	44,171	4,010	22,361	6,351	11,324	88,217	74,365	13,852	88,217

draws its patients from a much wider area than the parish in which it is located, and all around it are parishes that have experienced great development. Shut in somewhat by the city on the west and by the river on the south, its territory extends eastward as far as Poplar, and northward well into Hackney. Within this district there has been during the past twenty years an addition of at least 120,000 persons to the population, and of course a correspondingly increased demand upon the resources of the institution. Thus, in 1871 the number of in-patients received was 4781, the number of out-patients treated was 66,448. In 1891 these numbers had grown by gradual increments year by year to 8842 and 112,092 respectively. Carrying the comparison a little further back to the year 1866, which was a cholera year in London, we find a record of 5000 in-patients and 45,000 out-patients, a marked advance upon the numbers of preceding years, and a number

lying territory, contains a population larger by a million and a quarter than that of the County of London itself. All these thousands of persons are for the purposes of hospital relief Londoners, and they add their contribution to the problem which the hospital authorities are called upon to solve; for it is manifestly impossible to apply to hospital patients the same strict rules as to local qualification which are applied to the claimants of municipal privileges. Thus on every side the problem grows under examination, and the only practical result of our best attempts to take its measure is to produce a sense that it is a problem of overwhelming proportions, too vast to be capable of presentation in such a form that the mind can adequately realise its magnitude and complexity.

HOW THESE PROBLEMS ARE DEALT WITH.

These are some of the problems of hospital administration

in the metropolis. How are they, in fact, solved? That is a question very difficult to answer except in a vague manner. Broadly, they may be said to solve themselves, for of course, in a sense, the existence of a hospital is dependent upon local needs. Two great general hospitals, for example, do not grow up next door to one another. Twenty years ago no better answer than this could have been given to the question, for there was no body, public or private, having jurisdiction to entertain questions of this kind; but at the present time a very effective oversight of all that concerns the good administration of the moneys committed to their hands is exercised by the Council of the Hospital Sunday Fund, and the questions now under consideration come, together with numberless other questions of a similar kind, before that tribunal. It is plain that it closely affects the outcome of their distribution that it should result in the allotment of the Fund in accordance with a just estimate of the comparative needs of various institutions. An undiscriminating bounty like the donations and subscriptions of the charitable public is apt to starve one institution while it overdoes the needs of another, in this way squandering resources which a wiser and more painstaking administration would economise, and, by merely economising, turn to greatly improved account. In this way the office of almoner is one of the very greatest practical importance; and although until twenty years ago it was wholly neglected so far as the medical charities of London were concerned, it is now discharged, and discharged with a large measure of success, by the Council over which the Lord Mayor of London presides. In consequence of the care which is taken to examine in the temper of a wise and kindly criticism the claims of applicants for a share of the Fund, it may be confidently affirmed that no part of the public expenditure of the metropolis produces equally happy results at so small an outlay. Not only is a large return in actual relief afforded and positive results secured, but the public scrutiny which has by this means been established into what was formerly the wholly inscrutable subject of hospital management, has reacted upon the whole system, and caused an improved administration to prevail throughout, so that enhanced results are now obtained not less from the means which private charity contributes than from those which the coöperation of the religious communities of the metropolis places at the sick service of the poor. The aggregate income of the metropolitan hospitals and medical charities averages nearly three-quarters of a million pounds a year. Of this great total the £40,000 realised by the Hospital Sunday collection is but a small part. Yet it has produced a marked effect upon the whole, and it is safe to say that the balance of £700,000 is better administered because of the conditions which are attached to the Hospital Sunday gifts. It may easily be supposed that by promoting economy this movement has produced an effect not less influential and not less beneficent upon the condition of the medical charities than its direct effect in augmenting their incomes by £40,000 a year. Unfortunately the materials for a direct comparison upon these lines do not exist. But certain it is that both results—the direct and the consequential—are at the present moment of unquestionable advantage and first-class importance to the institutions benefited. Yet the movement is in its infancy at the present time. The amount of the collection increases from year to year, and when it becomes commensurate with the wealth and charity of London it will be much nearer to £100,000 than to its present figure. The influence of the Council tends to increase in like manner, and, without taking any coercive form, to become more and more an authority which all concerned are glad to recognise. So, little by little, a slow advance is being made towards the solution of problems which have hardly been apprehended until now. A Parliamentary Committee has recently sat and taken evidence bearing on the condition of the hospitals of London, and in due time a report may be expected as the result of its labours upon which legislation may probably be based. But nothing that the Legislature can do will affect the condition and prospects of these institutions in anything like the same degree as that in which they have been affected by the spontaneous action of the religious world. The task is indeed one well worthy of the hands by which it has been undertaken, and one which fittingly unites in a common effort and a common aim those whose oneness in the great effort of seeking after God is too often obscured by the diversity of the paths in which the quest is pursued. Thus does this annual act of mercy vindicate its quality and claim to be "twice blessed." To "him who takes" it brings a benefit in his time of need which no statistics can exhibit, and upon the system itself by which that need is supplied it takes an effect great out of all proportion to the mere munificence of the gift. On "him who gives" it reacts in a way too subtle to be defined, yet too plain to be called in question. With claims like these to the goodwill of the good it is not strange that the Hospital Sunday collection should have commanded a large and growing

TABLE No. I.—GENERAL HOSPITALS.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment	Died.	Out-patients' visits.	Accidents and emergencies
Charing-cross	2291	813	1254	—	154	191	—	332
French	731	287	352	31	47	45	19,274	799
German	1,536	127	925	393	94	128	53,198	2,461
Great Northern Central	1,072	278	626	120	68	116	44,338	6,893
Guy's	5,710	5,189		326	415	532	69,468	22,150
Italian	230	223		4	15	7	12,093	—
King's College	2,281	817	855	237	192	206	31,753	10,845
London	9,458	3,622	3,579	824	661	882	236,619	10,846
Metropolitan	880	226	489	50	37	96	69,196	—
Miller Hospital and Royal Kent Dispensary	242	58	109	—	15	20	7,882	2,435
North-West London	646	195	263	18	40	48	25,705	13,603
Poplar	570	—	—	—	34	34	25,716	550
Royal Free	1,806	1,570		65	137	169	38,541	9,876
St. George's	4,312	2,294	347	1,209	787	443	26,303	18,534
SS. John and Elizabeth	107	—	—	—	—	—	—	—
St. Mary's	3,922	1,033	2,331	133	237	378	29,372	3,156
Seamen's	3,131	705	2,272	42	236	154	31,074	7,502
The Middlesex	3,018	875	1,716	155	269	354	94,363	21,895
Tottenham	706	—	—	—	—	—	—	—
University College	3,275	1,205	1,446	367	190	378	151,028	30,949
West London	1,504	1,262		—	95	147	60,449	20,922
Westminster	2,557	2,157		226	188	212	—	—
	50,135	12,615	16,724	4,200	3,401	4,540	1,016,372	183,750
Estimated to supply omissions	—	4,700	6,800	50	100	100	50,000	5,000
Total	50,135	17,215	23,524	4,250	3,501	4,640	1,066,372	188,750

measure of support since its establishment in 1873; and although the work has in recent years, and notably in 1891, been done in such a way that a great effort will be required to maintain its rate of progress in the present year, yet we are confident that the great effort will not be wanting, and that while our vast metropolis continues to grow with the amazing rapidity to which the census returns bear witness, the resources not less than the needs of its medical charities will also continue to "grow with its growth and strengthen with its strength."

THE PAST YEAR'S RECORD OF HOSPITAL WORK.

In the foregoing chapters of this article we have directed the attention of our readers to the difficulties that have to be faced and the work that has to be done by the hospitals of the Metropolis. In conclusion, we have to lay before them in a summary statement the broad results of the work actually done during the past year, as shown by the reports issued by the various institutions. It is not possible to ascertain these results with accuracy, because many of the reports are for various reasons imperfect, and some are altogether wanting. In these instances estimates have to supply the defect of returns, and to that extent of course our results are open to criticism; but it is a criticism which does not destroy the value or affect the broad significance of the result. First, then, as to the numbers treated. The total number of in-patients received has been about 99,000; the total number of out-patients' visits nearly two and a quarter millions. The results of treatment, so far as out-patients are concerned, cannot be exactly stated. The out-patients of a hospital come and go in such a way that it is impossible to keep systematic records—such as are usual in the case of in-patients—of their medical history. They exhibit, of course, as a whole the less serious maladies which come under treatment; and of those out-patients who develop serious symptoms, a large proportion are admitted eventually into the wards, and are recorded among in-patients in their turn. Others of course are cases

TABLE NO. II.—SPECIAL HOSPITALS.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
City of London for Diseases of the Chest	1,103	968	53	6	134	81	55,461	—
Hospital for Consumption	1,774	1,196		308	294	282	70,618	—
North London "	375	—	—	—	—	—	—	—
Royal for Diseases of the Chest	456	377	79	—	47	53	23,361	—
Royal National for Consumption	722	580	—	—	126	16	—	—
Alexandra for Children	154	13	50	4	81	3	90	—
Belgrave " "	153	49	69	30	13	5	7,657	—
Cheyne " "	72	4	7	5	50	6	—	—
East Lond. " "	1,107	312	386	90	95	250	44,959	—
Evelina " "	727	405		114	50	158	23,429	—
Home and Infirmary for Sick Children	593	—	—	—	44	—	3,915	—
Home for Children	—	—	—	—	—	—	—	—
Home for Sick Children	221	—	—	—	—	—	—	—
Hospital for Incurable Children	57	—	—	—	29	2	—	—
Hospital for Sick Children	1,248	398	549	323	99	197	80,000	—
North-Eastern for Sick Children	508	107	212	36	51	58	13,722	696
Paddington-green for Sick Children	445	390		—	—	60	27,665	2,955
Victoria " "	835	625		196	64	110	44,408	—
"The Vine" " "	33	3	13	—	14	—	—	—
British Lying-in "	170	168	—	—	11	2	593	—
City of London Lying-in	455	—	452	10	15	3	1,555	—
General "	463	—	—	—	—	2	1,248	—
Queen Charlotte's "	942	—	891	6	45	4	8,036	—
Chelsea for Women	494	174	242	—	29	18	12,723	—
Hospital for "	670	300	248	74	54	19	30,502	—
Grosvenor for Women	108	65	45	18	11	5	7,695	—
New " "	304	101	169	—	38	8	15,114	—
Royal for Children and Women	586	—	—	—	—	—	—	—
Samaritan Free for Children and Women	572	128	476	32	35	16	22,055	—
Cancer	682	588		9	68	102	7,498	—
London Fever	515	496		—	65	14	—	—
Gordon for Fistula	123	—	—	—	—	—	—	—
St. Mark's "	311	24	254	44	4	4	1,878	—
National for Diseases of the Heart	128	53	50	—	19	6	12,047	—
Female Lock	647	558	90	—	101	5	—	—
Male Lock	264	186	58	—	19	1	22,456	—
Hospital for Epilepsy	103	—	—	6	18	2	9,052	1
St. Peter's for Stone, &c.	351	91	220	—	11	12	30,633	—
National for the Paralysed	839	206	170	139	152	36	25,588	—
West-End	—	—	—	—	—	—	39,785	—
Central London Ophthalmic	157	—	157	—	—	—	17,689	236
Royal " "	1,892	1,892		50	56	—	109,756	2,194
Royal S. " "	—	—	—	—	—	—	28,369	—
Royal Westminster Ophthalmic	419	397	—	—	22	—	56,340	—
Western "	33	—	33	—	3	—	6,679	—
City Orthopædic	150	110	24	—	16	—	9,000	—
National "	127	127		—	36	—	2,681	—
Royal "	154	52	55	—	47	—	7,387	—
Hospital for Diseases of the Skin	12	12	—	—	—	—	18,080	—
Central London Throat and Ear	228	48	148	5	13	6	33,233	—
Royal Ear	153	80	65	10	3	—	8,297	—
Hospital for Diseases of the Throat	526	—	—	12	26	6	37,018	—
London Throat Hospital	55	—	—	—	2	1	10,627	—
London Homœopathic	752	—	426	—	42	—	—	31
London Temperance	751	230	786	34	84	51	14,712	2,211
The Dental	—	—	—	—	—	—	54,177	—
National Dental	—	—	—	—	—	—	33,406	—
Estimated to supply omissions	24,733 —	5,751 3,300	6,431 4,400	1,577 —	2,236 130	1,650 300	1,090,200 —	8,474 —
Total	24,733	9,051	10,831	1,577	2,366	1,950	1,090,200	8,474

of chronic and intractable disorders, which can be relieved, but not radically cured. The great bulk of out-patients, however, are effectively treated, and discharge themselves from further attendance because they are cured. Upon the whole, therefore, these large total figures may be taken to represent a very successful part of hospital work.

The in-patient totals can be dealt with in a somewhat more exhaustive manner. The whole number discharged cured was 44,000; the number of those relieved but not cured, 39,000. This latter total includes a considerable number of patients whose cases are beyond the power of medical skill to cure, and who can only be assisted by treatment which affords relief to the more distressing symptoms. Among these partially successful cases are some which, if they could be adequately explained to the general reader, would awaken the strongest sympathy of the charitably disposed, for, although the success of a perfect cure is that which patient and physician both chiefly desire, it is in these incomplete cases that the factor of skilful treatment is most important. In the cases of curable disease much is left to natural processes which tend to recuperation; but in a case of incurable disease the exact measure of the relief afforded and the precise limit of the territory to which the enemy is confined are determined almost exclusively by the treatment of the case. It is here therefore that the work of charity is most urgently required, and here accordingly that the triumph of charity is most complete. Paradox though it may seem, it is profoundly true that the greatest successes of hospital work are to be sought amid these partially successful cases. Of those remaining under treatment at the end of the year and of the deaths recorded it is not necessary to say more than merely to give the numbers, since the facts are self-explanatory. The former class numbered 7000; the deaths numbered 7700.

Such then, in meagre outline, is the work in which at this season the religious bodies of the metropolis are called to take part. The experience of twenty years is proof enough that no words are now needed to bring its claims home to the heart and the conscience of all good men, but it is none the less desirable on that account that the truth, in its length and breadth, should be brought to their knowledge, in order that they may appreciate both the greatness of the opportunity that is set before them and the pressing nature of the need which exists for help to be given, with no niggard hand, but in the spirit which finds that the blessedness of giving is his who gives.

TABLE No. III.—COTTAGE HOSPITALS AND CONVALESCENT HOMES.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
Metropolitan Convalescent	3,661	1,095	2,259	—	99	7	—	—
Bexhill-on-Sea "	1,530	334	1,113	—	43	4	—	—
All Saints "	3,402	1,448	1,820	—	145	2	—	—
Mrs. Gladstone's "	1,047	—	—	—	—	—	—	—
Hanwell "	—	—	—	—	—	—	—	—
Herbert "	371	155	150	—	34	—	—	—
King's College "	463	200	219	—	15	3	—	—
Mrs. Kitto's "	319	—	—	—	—	—	—	—
" Marsham's "	2,664	—	—	—	—	4	—	—
Mary Wardell "	163	—	—	—	—	—	—	—
Morley "	1,365	263	817	—	69	4	—	—
Convalescent Home for Poor Children	864	50	—	—	57	1	—	—
Princess Frederica's Convalescent	135	—	—	—	—	—	—	—
Ramsgate Children's "	32	9	21	—	3	—	—	—
St. Andrew's (Clewer) Convalescent	728	685		—	57	13	—	—
Do. (Folkestone) "	1,768	—	—	—	60	—	—	—
St. Barnabas "	183	180	—	—	2	—	—	—
St. Leonards-on-Sea "	—	—	—	—	—	—	—	—
St. Mary Magdalene "	—	—	—	—	—	—	—	—
St. John's Home for Convalescent Children	173	—	—	—	—	1	—	—
St. Michael's Convalescent	287	—	—	—	—	—	—	—
Seaside "	863	68	768	—	25	2	—	—
Beckenham Cottage	94	11	68	—	11	4	—	—
Blackheath and Charlton Cottage	131	29	76	—	12	8	3,953	15
Burstead "	—	—	—	—	—	—	—	—
Chislehurst "	—	—	—	—	—	—	—	—
Eltham "	67	10	52	—	4	1	—	—
Enfield "	52	6	34	—	6	6	—	9
Epsom and Ewell "	—	—	—	—	—	—	—	—
Hatfield and Broadoak "	74	19	50	—	5	—	—	—
Reigate and Redhill "	179	26	126	—	18	4	—	30
Shedfield "	54	6	48	—	3	—	660	—
Sidcup "	88	18	58	—	6	1	183	14
Wimbledon "	115	18	83	—	8	6	—	21
Establishment for Gentlewomen	—	—	—	—	—	—	—	—
Hampstead Home	164	22	116	—	12	10	—	3
National Sanatorium	202	38	80	—	52	5	—	—
Royal Sea-bathing Infirmary	667	277	228	—	124	5	200	—
Royal Mineral Water Hospital	1,206	998	169	—	156	6	—	—
Invalid Asylum	216	200		—	—	2	—	—
Firs Home	—	—	—	—	—	—	—	—
St. Catherine's Home	21	14		—	8	5	—	—
	22,278	5,280	8,365	—	1,034	104	4,906	92
Estimated to supply omissions	1,849	7,744	1,330	—	100	1,006	1,000	8
Total	24,127	13,024	9,695	—	1,134	1,110	5,906	100

Note.—Our scheme of Tables included a fourth Table giving a view of the work of the Dispensaries; but the returns from these Institutions being much less complete than those from the Hospitals, we have thought it expedient to omit this Table, which would have occupied considerable space to the exclusion of other matter that could very ill be spared.

SUMMARY OF TABLES.

INCOME AND EXPENDITURE.

——	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balance, &c.	Total income.	Ordinary expenditure.	Balances, capital expenditure, &c.	Total expenditure
	£	£	£	£	£	£	£	£	£
General Hospitals	118,346	20,557	103,802	76,918	9,522	412,145	318,496	93,649	412,145
Special Hospitals	132,647	13,718	88,060	57,667	54,452	346,544	219,582	126,962	346,544
Convalescent Hospitals &c. ..	44,171	4,010	22,361	6,351	11,324	88,217	74,365	13,852	88,217
Dispensaries	17,773	2,442	17,965	2,907	—	41,087	38,770	2,317	41,087
Total	312,937	40,727	232,188	143,843	158,298	887,993	651,213	236,780	887,993

WORK.

——	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
General Hospitals	50,135	17,215	23,524	4,750	3,501	4,640	1,066,372	188,750
Special Hospitals	24,738	9,051	10,881	1,577	2,366	1,950	1,090,200	8,474
Convalescent Hospitals &c.*	24,127	13,024	9,695	—	1,134	1,110	5,956	100
Total	99,000	39,290	44,100	5,827	7,001	7,700	2,162,568	197,324

* No sufficient returns as to Dispensaries.

Note.—It may be observed by some of our readers that a return covering to some extent the same ground as the foregoing is issued by the Council of the Hospital Sunday Fund, the figures differing slightly from ours. It may therefore be convenient to explain at once that the ground covered by the two returns is not quite the same. The Mansion House return includes only those hospitals and institutions which are actually located within the metropolitan area; our return includes all such as receive grants from the Hospital Sunday Fund. The result is that ou figures cover about thirty eight more institutions than do those issued from the Mansion House.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

Amounts received and disbursed in the year 1891.

Dr. RECEIPTS *for the year ending 31st October, 1891.*

1891.	£ s. d.	£ s. d.
To balance at Bank of England, 1st Nov., 1890	2,051 4 10	
,, Balance in hands of Secretary	6 17 0	
		2,058 1 10
,, Collections made at Sundry Places of Worship	36,258 19 10	
,, Collections at Schools	51 17 8	
,, Donations, including £282 16s. 0d. for Surgical Appliances	8,941 10 10	
,, Interest on Investment from 13th June to 27th July	78 5 1	
		45,330 13 5
		£47,388 15 3

Cr. PAYMENTS *for the year ending 31st October, 1891.*

1891.	£ s. d.	£ s. d.
By Awards to 107 Hospitals	37,175 1 7	
,, Awards to 9 Institutions	1,110 8 4	
,, Awards to 56 Dispensaries	2,441 13 5	
,, Surgical Appliances	1,889 17 7	
		42,617 0 11
,, Rent	168 15 0	
,, Fuel, Gas, and Office Cleaning	24 15 8	
,, Printing and Stationery	285 7 1	
,, Stamps and Postage	106 17 5	
,, Advertisements	289 19 5	
,, Salaries and Gratuities	828 9 6	
,, Furniture repairs	1 18 6	
,, Sundries	9 15 5	
		1,695 18 0
,, Balance at Bank of England, including £1,895 available for Surgical Appliances	3,054 6 4	
,, Balance in hands of Secretary	21 10 0	
		3,075 16 4
		£47,388 15 3

Audited and found correct, this 11th day of November, 1891.

(Signed) HART BROTHERS, TIBBETTS, & Co., *Chartered Accountants.*